# Introductory Lecture

TO A COURSE ON THE

# PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.*

BY C. E. BROWN-SÉQUARD,

M.D., F.R.S., F.R.C.P. LOND., ETC.

## INTRODUCTORY REMARKS ON THE MODE OF PRODUCTION OF SYMPTOMS OF DISEASE OF THE BRAIN.

*Almost all our admitted notions as regards the physiology and physiological pathology of the brain are grounded on wrong data—How these erroneous data have been obtained—Symptoms of brain disease do not issue from the loss of function of the part affected, or by merely setting in action supposed special properties of that part—An intermediate element exists between symptomatic manifestations and the diseased part of the brain—Symptoms arise from a change in other parts of the nervous centres than the one where we find disease—Necessity of distinguishing between effects of an irritation and effects of a loss of function—The effects of irritation are exceedingly variable, while those of a loss of function are constantly the same—Excessive excitability of the brain—Immense variety of effects of irritation of the different parts of the brain—Alterations caused by a lesion of a part of the brain in the nutrition of other parts of that organ itself and of the medulla oblongata, the spinal cord, nerves, and other organs or tissues—Comparison of effects of irritation of peripheric parts of the nervous system and effects of irritation of the brain—Disease may exist almost anywhere in the brain without any symptomatic manifestation—A lesion located anywhere in the brain may produce any of the symptoms of cerebral disease—The admitted or recently proposed localisations of function in the brain are to be rejected—Views of the lecturer on localisation—Some of his views on the physiology of the brain—Mechanism of production of symptoms, according to his views.*

WHEN we witness a loss of function occurring in connexion with a lesion of a part of the brain, we are very naturally led to suppose that the lost function has its seat in the part we find altered. Naturally also, but in a less degree, we are disposed to admit that if some muscles contract involuntarily in a limb, in the face, round the eye, &c., when a part of the brain is irritated, it is that the part thus put in action contains either the centre or the conductors usually employed by the will to move those muscles.

All our knowledge, or, more exactly, our supposed knowledge, of the physiology and the physiological pathology of the nervous centres is unfortunately grounded upon conclusions drawn from facts belonging to the two classes just mentioned. Natural, as I have said, as that mode of reasoning is, I cannot but think that it has been most mischievous; and, as regards the brain at least, I will try to show that the conclusions it has led to are essentially wrong and must be given up. This is no small undertaking, as what I have to prove is nothing less than the necessity—first, of throwing aside as false almost all our notions concerning the cerebral physiology and physiological pathology; and, secondly, of building up almost entirely new doctrines with regard to the physiological and morbid actions of the various parts of the brain.

If the mode of reasoning I criticise is carried out to its fullest extent, its danger becomes at once evident. Everyone knows what effect resembling laughter is produced when the sole of the foot is tickled. Concluding as has been done, when effects are observed after an irritation of the brain, we should have to admit that the central power of laughter resides in the sole of the foot. When a worm in the bowels causes insanity, we should have to accept as proved that the seat of intelligence is in the intestinal mucous membrane. If paralysis, convulsions, anæsthesia, amaurosis, deafness, &c., appear in consequence of some intestinal irritation, we should have to admit that the mucous membrane of the bowels is the seat of the centres for voluntary movements for the perception of tactile, visual, and auditory sensations, &c.

Everyone would say that such conclusions would be absolutely false. No doubt they are so; but there is no doubt also that we commit the same kind of mistake when we conclude that the left third frontal convolution is the seat of the faculty of expressing ideas by speech, because when it is diseased that faculty is often disordered or lost,—or that the upper parts of the two convolutions bordering on the scissure of Rolando on one side are the centres for the voluntary movements of the two limbs on the opposite side, because sometimes these limbs will be convulsed or paralysed when there is disease in those parts,—or that the *internal capsule* contains the nerve-fibres conveying the orders of the will to muscles in its front and lower part, and the nerve-fibres employed in the transmission of sensitive impressions in its back and upper part, because in many cases of paralysis disease has been found in its large front and lower part, and in several cases of anæsthesia a lesion existed in its small back and upper part. I could lengthen considerably this list of instances in which, from facts showing that sometimes a disease in some parts of the cerebral lobes, in the corpora striata, in the optic thalami, in the tubercula quadrigemina, in the cerebellum, &c., has coexisted with certain symptoms, it was concluded that each of these encephalic organs had a well-defined special function.

Long ago it should have been found out that between the primitive cause of symptomatic manifestations (that cause being located where there is an evident organic disease of the brain) and these manifestations themselves there exists a middle term, an intermediate element, which is the efficient or immediate, although secondary, cause of the symptomatic phenomena or effects. In other words, it should have been found that the symptoms of a lesion of the brain are not *immediate* or *direct* effects of that lesion, and proceed from an unseen, but perfectly discoverable, alteration in parts of the cerebro-spinal centres, more or less distant from the seat of the known lesion. Long ago it should have been ascertained that the cerebral lobes, the cerebellum, and the base of the brain, are very much more excitable than the nerve-fibres of the various mucous, serous, or fibrous membranes of the body, and than those of the trunk of the cranial or spinal nerves, and that the mechanism of production of symptoms of brain disease is the same when there is an organic disease of the brain as when those symptoms appear as reflex effects of peripheric nerve irritation. It should have been discovered that it is an irritation propagated to other parts of the nervous centres from the diseased spot in the brain, which causes paralysis, anæsthesia, aphasia, amaurosis, loss of consciousness, &c., and not a *loss of function* of that diseased part; and that it is also an irritation propagated to other parts of the nervous centres from the diseased cerebral tissue which gives rise to convulsive and other involuntary movements. In the two kinds of cases just indicated, although the symptoms are so completely different, there is this similarity, that it is only by an irritation propagated to other parts of the nervous centres that a diseased part of the brain or its neighbourhood produces these symptoms.

The necessity of distinguishing the effects of an irritation from those depending only on a loss of function is very much greater than it is known or supposed to be. The sciences of physiology and medicine cannot be studied without our finding at every moment that wrong conclusions have been drawn from facts, owing to the neglect of making that necessary distinction. I will only mention a few facts to show the importance of making such a distinction. Magendie, in a celebrated experiment, divides the trigeminal nerve, and finds that the senses of sight, hearing, and smell are lost as well as those of taste and of touch (in the face) on the side of the operation. Not thinking of that distinction, he concludes that the real nerve of these senses

* I ought to say that many of the views which are to be demonstrated in this course of lectures have already been made public, some so long ago as 1861 in my Gulstonian Lectures at the Royal College of Physicians, and the rest in my Course of Lectures at the Faculty of Medicine of Paris in 1869, and in lectures I have delivered in 1867, 1872, and 1873, at New York, Boston, Philadelphia, Baltimore, Brooklyn, and Washington, in the United States. Many of my views have also been published in THE LANCET, the Archives of Scientific and Practical Medicine, and the Archives de Physiol. Normale et Patholog.

is the trigeminal. Serres and others find that in man also those senses are sometimes lost on the side of a lesion of that nerve. They did not see that the lesion of that great nerve irritated its fibres and produced an arrest of the activity of all the special sensorial nerves,* so that the effects were due to an irritation and not to a cessation of function of the trigeminal. If, instead of paying attention only to the cases of lesion of the trigeminal nerve producing a cessation of action of the sensorial nerves, all the cases of alteration of that nerve had been studied, it would have been found that the effect discovered by Magendie is not constant. There lies, as I will show in a moment, the great difference between the effects of irritation and those of loss of function, the first being essentially variable and often or sometimes missing, the second being absolutely constant.

The physiological history of the cerebellum is crowded with mistaken suppositions that would never have encumbered science, and blocked its path, if the distinction between the effects of irritation and those of loss of function had always been present to the mind of the able physiologists who have propounded these erroneous views. It is enough to recall here the suppositions that the cerebellum is the centre for the equilibration of the body, for the muscular sense, for the genital organs, for the movements of the eye, &c. I wonder that it has not been maintained that that nervous centre is also the centre for sight and for the movements of the stomach, as its lesions so often give rise to amaurosis and to vomiting.

The efforts recently made to locate special centres in the auditory nerve, or in the semicircular canals, might also have been avoided had the distinction I insist upon as being so important been clearly present to the mind of the ingenious physiologists who have made those attempts.

Up to a time not very far off the alterations of nutrition which so often follow the injuries to a nerve, or to the spinal cord, in man or in animals, have been attributed to the loss of a supposed function of the nervous system, consisting in the maintenance of the normal state of nutrition in the various tissues and organs. Led by the distinction I am now speaking of, I found, in 1849, that the alterations of nutrition depend on irritation of nerves, or of the spinal cord, or upon peripheric causes of irritation, and not on a pretended loss of function. I will refer to the admirable work of my friend Professor Charcot† for a full discussion of this subject and a demonstration of the correctness of my view, which he has almost made his own in contributing so many facts to support them.

Blaming others, as I do, for having committed the mistakes I have mentioned, and for having in that way delayed the progress of science, it is my duty to say that I have also been guilty of the same fault. When I found that animals always died in a very short time (much shorter than after the extirpation of the kidneys) when I had taken away their supra-renal capsules, I looked upon those small organs as having a function of so great an importance that life could not persist when that supposed function was lost. The truth is that the phenomena which follow the ablation of these singular organs are effects of an irritation of their nerves, and not effects of a loss of their function or functions. The power of these nerves is fully demonstrated by these two facts—first, that, as I have found, their irritation by compression (when the hilus of the capsule is tied strongly), if limited to one supra-renal organ, will produce rotatory movements; and, secondly, that their reflex inhibitory influence on the heart and the respiratory centres is considerable.

All the conclusions recently drawn by a number of ingenious physiologists and physicians from the effects of irritation of parts of the cortical substance of the brain, by galvanism or by disease, in animals and in man, having led to the view that in those parts are located the psycho-motor centres for the movements of the upper or the lower limb, of the eyelids, the neck, the face, the tongue, &c., are as many great mistakes that might have been avoided had the distinction between effects of irritation and effects of a loss of function been properly appreciated by these investigators.

The effects of irritation for the same lesion in the same place are characterised by their very great lack of constancy; they may not appear at all, and when appearing their variety may be extremely great. Indeed, that variety may be considered as infinite, and it seems to be so, not only for the intensity or degree, but also for the kind, the place of appearance, and the association of those effects. Not so for the effects of a lesion merely producing the loss of the special function of the part where it exists. Here we find absolute constancy of existence and invariability of kind. These effects of course consist in the cessation of the function or functions of the parts destroyed or altered, and of the results of that cessation. A section of a nerve or of the spinal cord, the destruction by disease or otherwise of the whole brain, are good illustrations of the effects of lesions producing a loss of function.

An irritation can produce two very distinct sets of effects, while a lesion destroying a part endowed with a special function can produce but one set of effects. In this last case there is only and always the loss of the special function belonging to the diseased part, and the direct results of that loss; in the other case there may be, from an influence exerted on other parts, a cessation of their action (loss of function), or the production of a secondary irritation, through which an immense variety of phenomena can appear. Under the influence of irritation, therefore, the activity of nerve-cells of more or less distant parts of the cerebro-spinal centres may be either inhibited (arrested) or morbidly increased and put in play.

The best criterion to find out if an effect is really due to the loss of function of a diseased part of the brain is whether it is or not *constantly* observed in cases of destruction of that part. According to this rule, no special function can be admitted to belong to a part of the brain if there is even one single case only without a complete loss of the supposed function, when the part, if considered as a conductor, has been cut across, and, if looked upon as a central organ, has been entirely destroyed. In other words, the supposition that a special function belongs to a part of the brain receives a death blow if even one case only exists in which that function persists in the circumstances just mentioned for a conductor or a central organ. Not only such a fact is a decisive evidence against our admitting that the part possesses the supposed special function, but it is also a proof that when an organic alteration of that part causes a loss of function, it is through some change in other parts due to the propagation to them of an irritation, starting from the diseased part or its neighbourhood. Two striking instances of the value of this criterion are furnished by the physiology of the medulla oblongata. Long ago I found that the part considered by Flourens as the "focus of life," the only origin of the supposed "vital force" can, although rarely, be taken away without any greater harm than the slow apparition of a lasting epilepsy, and that the reason of the sudden death occurring in almost all instances when that small part (the grey matter at the nib of the calamus) is taken away consists in the effect produced by the irritation of the neighbouring parts on other parts of the nervous centres and on the heart. I also found long ago that a complete transversal section of the medulla oblongata below the level of the part considered as containing the respiratory centre, is not constantly followed by a cessation of respiration and death, showing conclusively that the respiratory centre extends into the spinal cord.* If respiration stops when the medulla oblongata is divided, it is owing to an inhibitory influence exerted on the nerve-cells above and below the section, and not because of the separation of a part or of the whole of the respiratory centre from its bonds of union with the respiratory muscles. A mere prick can produce as great an effect as the crushing of the whole medulla oblongata.

Other parts of the brain, which have till our days been considered as inexcitable, possess, however, almost as much, if not more excitability than the medulla oblongata. I have already shown, in my lectures at the Royal College of

* I will try to show elsewhere that this arrest of activity of the nerve-cells and nerve-fibres of the sensorial nerves is an inhibition similar to that of the nerve-cells of the heart when the par vagum is irritated, and will then mention facts showing that an effect as extensive and as great as that of a lesion of the trunk of the trigeminal can take place from an irritation of a nerve-twig, or a branch of that nerve. I will show also that an irritation of the optic thalami will also sometimes produce, by a similar mechanism, the same effects.

† Leçons sur les Maladies du Système Nerveux, faites à la Salpétrière, 2me Edit. Paris, 1875. Vol. i., pp. 1—152.

* My publication of this experiment was made in 1858. It has not attracted attention, but now that a German has *rediscovered* the same fact it will soon be known all round the world.

Physicians, in 1861, that symptoms of brain disease are mainly due to irritation, which of course implies the existence of excitability. Thousands of cases of disease of the brain show how great is the excitability of the various parts of that organ. The experiments of Fritsch and Hitzig, those of Dr. D. Ferrier, and especially those of an able young French physiologist, Dr. Bochefontaine,* have shown how powerfully a galvanic irritation may act even on the convolutions of the brain. I have obtained also from another mode of irritation—i.e., heat applied either to the convolutions, to the white substance of the cerebral lobes, or to the great masses of grey matter at the base of the brain, a considerable variety of effects, showing how great is the excitability of all parts of the brain.

The clinical and the experimental facts showing how various the effects of an irritation of the brain can be, prove that that organ is not to be considered as different from the peripheric parts of the nervous system. As I have maintained for a long time, and as I expect to prove fully in the course of lectures, we are to look upon all the symptoms of brain disease, such as paralysis, anæsthesia, amaurosis, aphasia, insanity, convulsions, &c., as being produced by the same mechanism, whether they arise from an irritation in any part of the trunk or limbs, or from an irritation in any part of the meninges or of the brain itself. The excessive excitability of the tissues of the brain is a very important argument in the demonstration of that analogy of mechanism.

That symptoms of brain disease can arise from an irritation is amply shown by the facts above mentioned, but there are other proofs of the possibility of that origin of those symptoms. The now well-known power of disease of, or injury to, the brain of producing alterations of nutrition, either in that organ itself at a distance from the primarily altered part or in the cerebellum, the medulla oblongata, the spinal cord, its nerves and the organs they go to, throws a great deal of light on the mode of action of irritation in producing the ordinary symptoms of brain disease. A change of nutrition being possible at once in most parts of the nervous centres from a limited irritation in the cerebral lobes or the base of the brain, it is easy to understand that symptoms may arise from that change of nutrition. When we see, for instance, that immediately after a certain irritation of the brain surface in dogs—as I have found and shown to the Biological Society of Paris—all the symptoms of meningo-myelitis may appear at once in the dorso-lumbar part of the spinal nervous centre, is it not easy to understand that symptoms of brain disease may be due to a sudden change of nutrition in some parts of the cerebro-spinal axis in cases of organic disease of the brain? Does not the same conclusion naturally flow out also from alterations like those I have found in the lungs immediately after a prick or a cut of certain parts of the base of the brain? These alterations consist—first, in anæmic spots, absolutely white and bloodless, not a single globule remaining in the capillaries; secondly, in spots of œdema, in which, as seen by my friend, Professor Ranvier, there were only white corpuscles and serum in the capillaries; thirdly, in ecchymoses and sometimes large effusions of blood; fourthly, in more or less extended foci of congestion resembling red hepatisation. Does not also the extreme rapidity of the formation of bullæ and of gangrene (bedsore) on the nates on the opposite side to that of brain disease, as found by my friend Professor Charcot, lead to a conclusion like that I have mentioned?

There can be no doubt that changes of nutrition may take place almost anywhere in and out of the nervous centres from an irritation of some part of the brain. There can be no doubt also that symptoms may arise from these alterations of nutrition. But much more than this can be proved by the study of cases of brain disease, as it shows that *symptoms arise neither from a loss of the special function of the part diseased nor from a direct and immediate effect of the manifestation of a special property or power of such a part* (as my ingenious friend, Dr. J. Hughlings Jackson, believes), *but from an influence exerted on other parts at a distance from the seat of an organic lesion, and caused by an irritation of the diseased part or of its neighbourhood.*

The proofs of the correctness of those views are superabundant.* I will refer for the details about them to my future lectures, and will only give here the following propositions, each of which simply constitutes a summary of facts. 1st. A lesion in one half of the brain may produce symptoms either on the opposite or on the corresponding side. 2nd. A very small lesion, whatever be its seat, can produce most extensive and violent symptoms. 3rd. A lesion occupying the same extent on the two sides of the middle line of the brain may produce symptoms only or chiefly on one side of the body. 4th. Symptoms may appear suddenly from a slowly and gradually-developing lesion. 5th. Symptoms may appear slowly from a suddenly-produced lesion. 6th. The greatest variety of symptoms may proceed from a lesion in the same part of the brain. 7th. The most various parts of the brain can give rise to the same symptom. 8th. Permanent lesions may produce symptoms by attacks, just as they produce epileptiform seizures. 9th. Symptoms may cease suddenly or rapidly notwithstanding the persistence of the lesion. 10th. Symptoms of brain disease may appear from an irritation of visceral and other peripheric nerves. 11th. Considerable lesions anywhere may exist without the appearance of symptoms.

To sum up all those propositions, I will say that there is no necessary relation between the seat, the extent, the kind of a lesion, and the symptoms that may appear from its influence. According to the criterion above mentioned, symptoms being so inconstant and so variable from the same lesion in the same part (whatever it be) of the brain, must be considered as effects of irritation, and not as effects of loss of function. Besides, their variety, even when they proceed from a lesion in the same place, is too great for our considering that those which are clearly due to an irritation, such as convulsions, vomiting, &c., are mere manifestations of the special properties or powers of the part where there is a lesion.

If these propositions are right, as I will fully demonstrate in other lectures, it is clear that we must give up all or almost all our notions about the physiology and the pathological physiology of the brain. What of the notion that the left side of the brain is the seat of the will power that moves the right limbs and of the power of perception of sensations coming from those limbs, if we find that a lesion of that left half of the brain can produce paralysis or anæsthesia not only in the limbs on the opposite side, but also on those on the same side†, and if we find, besides, that a considerable lesion existing anywhere in that left half of the brain may cause neither paralysis nor anæsthesia? What of the notion that the corpus striatum on one side serves to the movements of the limbs on the opposite side, and that the optic thalamus serves to sensibility for the limbs also on the opposite side, if both the optic thalamus and the corpus striatum on one side can be destroyed without paralysis or anæsthesia on the opposite side? What of the idea that the crus cerebri and the anterior pyramid‡ on one side are the only channels for the transmission of the orders of the will to the limbs on the opposite side if they can be deeply altered without paralysis? What of the notion that there are motor centres in the convolutions of the brain producing convulsions in the limbs on the opposite side if we find that these pretended centres can be irritated by tumours or inflammation without generating convulsions; and if, also, we find that they can produce those spasmodic movements on the side of the lesion? What of the localisation of the faculty of expressing ideas by speech, either in the third frontal convolution (Broca's view), or in the island of Reil (Professor Sanders's and Meynert's view) in the left side of the brain, if we find that disease anywhere else in that side of the brain may produce aphasia, or that disease of the right side of the brain may also produce it, or also that disease may exist in those places without aphasia, or, again, that aphasia may be cured although the disease in those places that had given rise to it continues to exist?

* In his important paper Dr. Bochefontaine shows that a galvanic irritation of the surface of the brain has a very great power on the general circulation of blood, on the biliary and pancreatic secretions, on respiration, on the stomach, the bowels, the spleen, the uterus, and the bladder.—See Archives de Physiol. Normale et Pathol., Paris, 1876, p. 140-172.

* A part of the proofs that can be given will be found in my papers on the origin of brain symptoms in my American journal, the Archives of Scientific and Practical Medicine, February and March, 1873.

† See my Lecture on Paralysis on the Side of the Lesion in the Brain in THE LANCET of January last, pp. 1, 76, and 109.

‡ See the already quoted Lecture in THE LANCET, p. 150, vol. I, 1876.

When, in the subsequent lectures, I give details on these points, I will also give other decisive arguments against the views recently proposed about the special functions of many parts of the brain.

It may be said that a good deal of what I have stated against the admitted views has value only if there is no possibility that one side of the brain will sometimes assume the functions lost by the other side. It is yet to be proved that one half of the brain can come to the rescue and perform, besides its own functions, those of the other. The view I maintain—i. e., that one half of the brain has power enough for the performance of the functions of the whole brain—seems to imply my acceptance of that supposition. Not entirely so: the study of clinical facts clearly shows that although we have two brains instead of one, most people develop the powers of only one for certain actions and of the other for certain other actions; so that if, for instance, an affection destroyed in the left brain the supposed centres for volitional impulses to the right limbs, the same supposed centres in the right brain would be, from lack of development of power, unable to perform the special function of the left centres. But the theory that there will be no symptom or a cessation of symptoms, notwithstanding the destruction of pretended special centres in one side of the brain, because the healthy other side will perform the functions of the injured one, must be cast aside in presence of facts—and there are many such—in which the supposed centres for special functions are destroyed in the two halves of the brain, without any loss of these functions.

In another lecture I will show how the physiology of the brain is to be brought to harmonise with clinical facts. I will only give here a short general outline of some of my views.

1. As regards localisation of function, a great many facts lead to the view that the nerve-cells endowed with the same function, instead of forming a cluster, so as to be in the neighbourhood of each other, are scattered in the brain, so that any part of that organ can be destroyed without the cessation of their function. It makes no difference whatever whether the distance between nerve-cells employed in the same function is a small fraction of a millimetre or very much greater, as in either case their communications with each other must take place by conductors (nerve-fibres), the length of which is unable to interfere with the function.

2. Each half of the brain is a complete brain originally, and possesses the aptitude to be devoloped as a centre for the two sides of the body, in volitional movement, as well as in all the other cerebral functions. Still, very few people develop very much, and perhaps nobody quite fully, the powers of the two brains; and, on the contrary, in most persons only one of these two primitively similar organs acquires great power for certain actions, and the other for other actions.

3. Communications between the body and the brain can be more or less fully accomplished by means of a very much smaller number of conductors than would be necessary according to any view like the well-known clavier theory. As we know that the will only gives an order, and as we know by clinical facts that any part of the medulla oblongata can be destroyed without paralysis, and that in some cases a very small portion of it has proved sufficient for the persistence of voluntary movements, it would seem that the order may be transmitted as well by one fibre as another, and that it is necessary to recognise the existence of faculties of a much higher order in the nerve-cells of the spinal cord than those which are admitted to exist there. Many facts and a similar reasoning tend also to show that the nerve-cells of the spinal cord possess, as regards sensibility, faculties of a higher order than those which are admitted.

This is all I will say now about the physiology of the nervous centres.* As regards the physiological pathology of the brain, I will prove in this course of lectures that symptoms of local brain disease arise only from irritation. I will show, also, that irritation acts either in stopping an activity or putting in play or exaggerating morbidly an activity. If it stops an activity, it is, as I will show in another lecture, through an inhibitory influence exerted on the nerve-cells endowed with that activity and widely diffused in the nervous centres. If it causes a manifestation of a normal activity, or produces a morbid activity, it acts in the same way as a peripheric irritation when it produces similar effects.

Two kinds of symptoms therefore exist, both being due to irritation: in one kind a cessation, in the other a manifestation, of an activity. To the first kind belong paralysis, anæsthesia, amaurosis, aphasia, loss of consciousness, &c. To the second belong delirium, epileptiform and other convulsions, spasmodic rigidity, trembling, choreic movements, vomiting, hiccough, rotatory or circus movements, &c.

When I treat of paralysis, as I shall do in the following lectures, I will give the arguments on which I ground the view that the first of the two above series of symptoms depend on an irritation starting from the seat of an organic lesion and acting on more or less distant nerve-cells so as to produce by inhibition an arrest of their activity.

* For other views of mine on this subject see the Archives of Scientific and Practical Medicine, Feb. 1873, p. 119 et seq.

---

## ON GELSEMINUM SEMPERVIRENS.

BY SYDNEY RINGER, M.D.,
PROFESSOR OF THERAPEUTICS AT UNIVERSITY COLLEGE;
AND
WM. MURRELL, L.R.C.P., M.R.C.S.,
DEMONSTRATOR OF PHYSIOLOGY AT UNIVERSITY COLLEGE.

(*Continued from* vol. i., p. 734.)

### ACTION ON THE PUPILS.

STRANGE to say, the internal administration of gelseminum produces an effect opposite to that occasioned by its local application to the eye itself. When given by the mouth in doses sufficient to produce symptoms, the drug, in every instance but one, caused contraction of the pupil. Indeed, in the case in which the drug produced weakness of the legs with a strong double internal squint, the pupils were contracted to a pin's point. In the exceptional patient just referred to, on whom we made two observations, though on each occasion we produced great giddiness, haziness, susceptibility to light, and diplopia, the pupils did not contract, but manifested a very unsteady condition, varying greatly in size in rapid alternation without any apparent cause. In another patient, the pupils were strongly contracted when exposed to light, but they dilated freely in a darkened room; and when they recontracted on exposure to light they seemed in an unstable condition, oscillating a good deal. The contraction of the pupil does not cease on the disappearance of diplopia or dimness; indeed, when the dimness has passed away, the contraction of the pupil may increase.

In the cases of accidental poisoning it is recorded that during complete general paralysis the pupils are widely dilated, and therefore it might be inferred that the condition of the pupil depends on the dose—a moderate dose contracting, a very large one dilating, the pupils. This explanation is possibly in part true; but the dilatation might be due likewise to the asphyxia induced by large doses. Thus Dr. O. Berger finds, and our observations confirm his statements, that dilatation of the pupils in poisoned animals occurs only when asphyxia from paralysis of respiration has set in, and that artificial respiration at once causes the pupils to contract.

On the other hand, the topical application to the eye dilates the pupil. We employed, in the first instance, a tincture (1 in 10) and the American liquid extract. These preparations dilate the pupil slightly, but they excite great irritation and smarting. We then employed the alkaloid prepared by Mr. Gerrard—one grain in twenty minims of water, a solution which causes scarcely any smarting. Mr. T. Fox and Mr. Sydney Pearse have made for us nineteen observations. A few drops of the solution were put into one eye, and in each case this trial pupil became widely dilated, the dilatation usually beginning in about thirty minutes. Not only does the pupil dilate, but the muscle of accommodation becomes paralysed and the sight affected. In twenty-four hours vision again becomes nearly natural,

but the pupil remains dilated much longer—sometimes, indeed, for a week, or even a fortnight.

The fact that the internal administration contracts the pupil led us to examine carefully whether the local application to the eye causes any primary contraction; and in three instances we thought we detected very slight contraction, lasting only a few minutes.

The local application also dilates the pupil of rabbits and cats. The pupil of a cat being extremely sensitive, we thought that if the local application did cause primary contraction, we should detect it best in this animal. In the five observations we made the pupil in each instance became decidedly contracted before dilating. In one instance the contraction began in two minutes, in another it was delayed fifteen minutes; the average time being ten minutes. Its average duration was twenty-four minutes, and it was followed by wide dilatation.

It occurred to us that possibly the contraction might be due simply to irritation. We therefore made five test observations on two cats on different days, using respectively a solution of alum (one in twenty), of common salt (one in twenty), of quinine (one in thirty), of strychnia (one in 120), and of dilute acetic acid, with an equal quantity of water. We applied these solutions freely to one eye, causing quite as much smarting as follows the application of gelseminum, and then watched the effects carefully. We could detect no contraction except with the quinine experiment, in which case we thought that, five minutes after the application, it had produced slight contraction of the pupil, but on re-examination a few minutes later this had disappeared.

We have said that the local application dilates the pupils, but we must add that in rabbits absorption sometimes takes place so readily, and these animals are so easily affected by the poison, that they became asphyxiated, and die before the pupil has time to dilate. The contracted pupils due to the internal administration of the drug, and the dilated pupils due to its local application, are both associated with dimness of sight.

We have seen that the internal administration of gelseminum contracts the pupil in man and the lower animals, and that dilatation occurs only on the supervention of asphyxia, which at once disappears on the employment of artificial respiration; showing that this dilatation is due to the asphyxia and not to the drug. It occurred to us that the internal administration would probably dilate the pupil, but that a dose adequate to produce this effect so quickly would paralyse the respiratory centre and that the animal would die asphyxiated before the drug had time to dilate the pupils. To ascertain the validity of our conjecture, we made a rabbit insensible with seven grains of chloral, then inserted a cannula into its trachea, and injected into the subcutaneous tissue of the axilla thirty drops of the liquid extract, and at once commenced artificial respiration, to prevent the advent of any asphyxia. In seventeen minutes we thought the pupils were a little contracted; in twenty-six minutes well-marked signs of paralysis set in, shown at first by a difficulty in keeping up the head; in half an hour the animal could not raise its head off the table, whilst it still retained considerable power over its trunk and extremities. At this point the eyes became prominent and the pupils began to dilate, and in thirty-four minutes the animal tumbled over on its side, and then we noticed that the pupils were decidedly larger and the eyes more prominent; but as at the expiration of an hour the pupil had not become widely dilated, we repeated the thirty minims of liquid extract, injecting it in two places into the subcutaneous tissue. Paralysis rapidly increased till it was complete in the anterior part of the body, though still the rabbit had considerable power over its hind legs; but at last these also became almost completely paralysed, and the animal lay on its side in a helpless state. As the paralysis advanced the pupil dilated somewhat, till at last it became above double its original size, though it never reached the degree of dilatation observable in man and cats after the local application of the alkaloid. We noticed that the animal retained the power of closing its eyes quickly and strongly, even after almost complete general paralysis, whence we conclude that the seventh or some of its branches is one of the last nerves to undergo paralysis. While performing this experiment we noticed that the anterior part of the body was first and most severely paralysed, for after the anterior limbs were almost helpless the animal retained a good deal of power over the posterior extremities, which likewise at last became helpless.

On another occasion we repeated this experiment, and continued artificial respiration for two hours and ten minutes. During this time we injected under the skin a drachm of the liquid extract three times, completely paralysing the rabbit. At first the pupils became slightly contracted, but under the full effect of the drug they were slightly dilated. This experiment shows clearly that the internal administration of a large dose will dilate the pupil, though not considerably.

We have seen that gelseminum internally administered at first contracts and then somewhat dilates the pupils, and that it dilates them when locally applied. How does it produce these effects? Through the third nerve or through its influence on the sympathetic? We are unable to answer these questions, and we shall rather indicate the difficulties to be contended with than hope to explain them.

Assuming that gelseminum first stimulates and then paralyses the third, it would seem that its action can thus be readily explained; but a little consideration will show that this view is inadequate. Thus we find that the internal administration contracts the pupil—due, we assume, to stimulation of the third nerve; but this contraction persists even when the muscular branches of the third are paralysed. It may be said that to paralyse the branch of the third supplying the iris a larger dose is required than is needed to paralyse the branches supplying the recti and other muscles, and hence whilst these muscles are paralysed the pupil continues contracted. But this supposition is inadequate to explain why the topical application should widely dilate the pupil without paralysing the muscles. We are forced to accept the feasible assumption that, topically applied, gelseminum has a stronger affinity for the termination of the branches of the third supplying the iris than for the branches distributed to the orbital muscles.

*(To be continued.)*

## ON TWO NEW FORMS OF TOURNIQUET.

BY JOHN M. HUNTER, M.D.,
STAFF-SURGEON, R.N.

THE necessity of having some ready and very portable means of checking hæmorrhage arising from wounds has long engaged the attention of surgeons, especially those serving in the navy and army, and before going into action a number of simple field tourniquets are usually issued to some of the sailors and soldiers, with directions concerning the mode of their use. These tourniquets generally consist of a piece of webbing, a buckle, and a pad, and are buckled on as tightly as they can be pulled. When applied on the limbs of muscular men they are practically useless, and compress the artery slightly, or not at all. A more gradual and more powerful means of compression is required. The earliest kind of tourniquet was a band, and a stick for twisting it tight, called by sailors a "Spanish windlass," and, according to Ballingall, this form was first used by Morel at the siege of Besançon in 1674.

I have designed a modification of this ancient instrument, shown in the accompanying illustration, possessing, I think, all the qualities necessary for field use. It is very light, portable, and powerful. A piece of beech, or other hard wood, about 2¼ inches long, 1¼ inches broad, and from ¾ to 1 inch thick, is shaped like the letter W at the top, which shape it preserves for ¾ of an inch, when it is tapered down to form an oval concave pad 1¼ by 1 inch. Through the top, and over the centre of the pad, two narrow slots, or slits, half an inch broad, and half an inch apart, are cut sloping downwards and outwards, coming out where the pad begins to taper. To the underside of one of these slots, a piece of web about 4 inches long, carrying a buckle, is nailed by two copper tacks, and beneath the other a

piece of web, about 18 inches long, is similarly nailed. A piece of French sennet, about 8 inches long, is passed through the two slots, and firmly sewn at the ends to the upper surface of each piece of web. A piece of iron wire

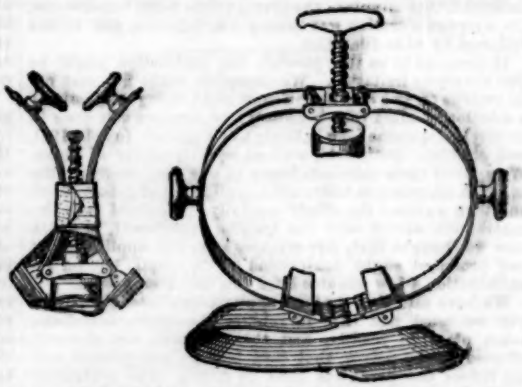
3 inches long, and gauge No. 9, sliding loosely in a small tin tube, and having a drop of solder at each end to prevent its slipping through, is placed between the two slots, and the sennet is firmly sewn around the tube, which should have a projecting flange to prevent the sennet slipping off. A picture-frame ring is screwed into the upper part of the piece of wood at the rounded end, and a piece of chamois leather is fixed by shellac-cement to the face of the concave pad. The sennet being a little shorter than the web, from pad to sewing, takes the strain, and prevents the tacks from being pulled out when it is buckled around the limb. The iron rod is used as a lever to gradually twist round the sennet till a sufficient degree of compression has been reached, when it is fixed by sliding one end through the ring. The sennet is made by plaiting nine or eleven pieces of thickish soft twine into a common "flat plait," which should loosely fill the slots. As is usual, a piece of leather should be sewn under the buckle to prevent the skin being pinched. Should the person who applies the instrument be unacquainted with the position of the artery, it is of no consequence, for the closure of the vessels is effected by the general compression, as I have seen demonstrated in 1871 by Prof. Lister when performing his bloodless amputations. He used a Petit's tourniquet without any pad and placed the screw indifferently on any aspect of the limb. Professor Esmarch's elastic band still further exemplifies this.

This tourniquet, which I purpose calling the "torsion tourniquet," possesses certain peculiar advantages. The twisting is gradual and is borne by the sennet, which is capable of withstanding a torsion strain, which would break the web. The slots keep the power always over the centre of the pads, and prevents the sennet communicating the twist to the web, which lies perfectly flat on the limb. The rod sliding in the tube can be readily fixed at any half turn, however great the strain on the tube. The instrument can be easily and cheaply made by any carpenter and will stand any climate, whereas instruments depending for their power on the elasticity of india-rubber are unreliable when exposed to the influences of climate or long keeping.

This and nearly all other tourniquets cause complete constriction of the limb, and, however useful as temporary measures, are exceedingly injurious when left on longer than two or three hours. They prevent the return of the venous blood and cause congestion, pain, and finally mortification. So serious have been the injuries produced through long-continued constriction of limbs by tourniquets, that some military surgeons have thought that more evil than good has resulted from their use. In the accounts of naval battles one often reads of the men unscrewing their tourniquets, and allowing themselves to bleed to death, rather than endure the pain of their wounds, the pain being caused, I believe, chiefly by the intense congestion produced by the constriction. After great land battles men are found who have had on tourniquets for twenty-four hours or longer, to the subsequent loss of limb or life.

Many attempts have been made, notably by the American army surgeons, to produce a tourniquet that would allow venous return—as do the aneurism tourniquets of Carte and Skey—and yet be portable. The two best forms I have hitherto seen are Messrs. Salt's dog-collar tourniquet, made of busk-steel, and described in THE LANCET, August 18th, 1875, and Surgeon-Major Moffit's wing tourniquet, described in another medical journal, Jan. 3rd, 1874. Messrs. Salt's, from the thinness of the steel necessary for adjustment, assumes the elliptical form when the screw is tightened, and compresses the limb at the sides. Mr. Moffit's is very light and compact, but is liable to be canted over, and thus displaced, in spite of the large pad used, and at the same time only a small portion of the limb is unconstricted.

After making about sixteen different tourniquets, including some with the screw placed horizontally for greater snugness when on, and portable forms of Lister's tourniquet, I have produced the one shown in the accompanying illustration, which possesses the necessary qualities of



allowing the screw to make direct pressure on the artery, leaves the circumference of the limb free, excepting where the pad and point of counter-pressure touch it, thus allowing venous return, is free from danger of displacement when applied—for the pads of counter-pressure take a bearing on the limb, and keep the instrument in position,—has no loose pieces to be lost, and, finally, is sufficiently portable to be carried in the pocket. The lower table of a Petit's tourniquet is removed, and an oval brass plate is substituted, carrying a thin wooden oval pad, 1¼ in. by 1 in., made concave, as recommended by Lee, and covered with a layer of chamois leather. Hinged around each spill of the upper table is a curved steel arm, ¾ in. in breadth, $\frac{1}{16}$ in. thick, and 4¼ in. long, with a curvature that causes it to measure 3¾ in. from point to point. A slot a little over ½ in. in breadth is cut from the hinged part to within a quarter of an inch of the rounded end. Sliding beneath this is another steel arm of exactly the same dimensions, and curvative, but without a slot. One end has a slight shoulder, or turned-up part, to keep it in the same line as the first arm, and a screw with a milled head to fix it at any part of the slot in which the screw slides. At the other end of the arm is a hinged pad, 1¼ in. by 1 in., having a slot through which to attach a small piece of web to one and a buckle to the other, and on its under surface a pad of vulcanised india-rubber, 1¼ in. by ¾ in., fixed on by copper wire. When packed for carrying, the set screws are run out as far as the stops at the top of each screw will allow, and the arms turned one into the other, as shown in the engraving. When required for use the arms are turned round, and fixed by the set screw at any position desired. By this means the difficulty of getting a tourniquet that can be made small enough for the arm or large enough for the thigh is overcome. The pad is then placed over the artery, and the instrument buckled tightly around the limb. A few turns of the large screw depress the pad on the artery, and slightly raise the rigid steel bands from the limb. Its appearance when in use is shown in the third engraving. The steel being blued, and the opposing surfaces of the bands being roughened with a draw-file, prevents slipping. The instrument when closed is 4¼ in. in height and 3½ in. in extreme breadth, giving, when opened, a span of about 16 in., sufficient to free from constriction the whole of the arm, and seven-tenths of an average thigh at its upper part. The apparatus figured here was made by Messrs. Matthews, Carey-street, and has been found to answer exceedingly well. It is not expensive, and would

be of great value in the hands of surgeons of the United Service when called upon to take off the temporary tourniquets in the numerous cases where time does not permit of immediate operation, and in cases of accident in the country, where patients have to be sent several miles to hospital.

## CEREBRAL HÆMORRHAGE; APHASIA.

BY JAMES WILSON, M.D.,
PHYSICIAN TO THE WORCESTER GENERAL INFIRMARY.

GEORGE F——, aged seventy, was admitted into the infirmary under my care on April 28th, at 9 P.M., having been brought in from the streets in a fit. On admission he was pale and insensible, but could be roused to a certain point on speaking loudly to him. There was slight paralysis of the right upper extremity, aphasia, and convulsive twitchings of the arms; no facial paralysis. Breathing natural; pulse 72, indicative of renal disease. Upon drawing off his water this was found albuminous and of low specific gravity. Ordered a purgative and sinapism to loins.

April 29th.—Bowels moved freely during the night, and has passed water under him; is very drowsy this morning, and mutters to himself; lying on his back, mouth open; face slightly flushed; angle of mouth natural on both sides, no facial paralysis; slight ptosis of right eyelid, no squint; contraction of both pupils. Upon speaking loudly, answers questions after some moments, but incoherently; protrudes and withdraws tongue naturally. Respiration normal; pulse 60; skin cool; temperature same on both sides of the body. Heart-sounds normal. The power of grasping with the right hand is but slightly impaired when compared with the left, and there is no paralysis of lower extremity; no diminution of sensibility; can swallow easily.—8.30 P.M.: Face flushed; laboured breathing. Pulse very weak, barely 60; temperature 102·2°. Ordered two teaspoonfuls of brandy, and repeated every hour, pulse being watched.—11.30 P.M.: Pulse fuller, but not quickened, 60. Brandy increased to a tablespoonful every hour.

30th.—10 A.M.: Pulse very irregular, from 60 to 70; temperature 100·5°; breathes easier; has passed water twice into the chamber when given him. Urine clear, sp. gr. 1019, slightly albuminous. To continue brandy in half-ounce doses every two hours; beef-tea and milk *ad lib.*—11 P.M.: Pulse 80, easily compressed; temperature 102·6°; skin hot; face flushed; slight difficulty in swallowing; picking action with right hand; has passed a large quantity of water during the day. Brandy reduced to a tablespoonful every four hours.

May 1st.—Pulse 62, small, still very irregular; temperature 101·6°. Got out of bed during the night; head thrown back; muscles of back of neck tense; mouth open; tongue thick, red, and dry on the dorsum; swallows better; pupils small and equal; mutters almost incessantly to himself, and lies on back; convulsive twitchings of both hands, and inclined to pick at bedclothes; slight cough; still answers as before when roused; passes water, when the chamber is given him, naturally; bowels confined; urine no longer albuminous, sp. gr. 1010. Brandy every two instead of four hours; beef-tea and milk *ad lib.*—10 P.M.: Pulse risen to 72; temperature 102°.

2nd.—Less retraction of head; still muttering, and yawns frequently; pupils contracted. Pulse 70; temperature 100·5°. Tongue dry and cracked; convulsive twitching and picking action less. Brandy, &c. &c., as before.

3rd.—Some improvement. Tries to get out of bed when about to micturate. Less aphasia; no paralysis; slight jerking of muscles of right arm. Pulse 70-75; temperature 100°. Ordered a stimulant mixture.

4th.—Great improvement. Less muttering. Jerking of muscles of right arm nearly gone. Answers distinctly to questions, and does not relapse for some time. Tongue moist; pulse 80, irregular; temperature 100°. Brandy as before. Takes plenty of beef-tea, milk, &c. Bowels to be acted upon by two drops of croton oil.

5th and 6th.—No change in symptoms, except general improvement. Bowels have been well opened.

7th.—Not so well this morning. Slight facial paralysis left side, and convulsive twitching of both arms. Muttering almost incessantly. Breathing deep and laboured. Pulse 78; temperature 100°. Takes all his nourishment. No difficulty in swallowing.

9th.—Again improved. Facial paralysis gone; no twitching of arms. More rational. Tongue brown, and inclined to dryness; breath very offensive. Bowels to be opened by calomel. Brandy and stimulant mixture as before.

12th.—Condition much about the same. Takes all his nourishment, but sinking slowly. Pulse 68. Breathes easier. Temperature 98°. Carbonate of ammonia added to the mixture. Brandy, &c., as before.

16th.—Return of convulsive twitching in arms and facial muscles of left side. Upon being roused, complains of pains in both arms. Lividity of cheeks, and tremulation of mouth. Pulse 54, very weak. Respiration laboured.

17th.—Convulsive movement of arms and face gone. Otherwise the same.

18th.—Died at 4.30 P.M., from asthenia.

*Post-mortem examination.*—The calvaria being removed, the membranes were found slightly congested, and a little lymph situated over the anterior third of the left cerebral hemisphere. On making a section of the brain in the usual manner, the brain-substance was found to be perfectly healthy as far as the level of the corpus callosum, and both lateral ventricles contained a little more than the normal amount of fluid, but not sufficient to cause pressure. Examination of the remaining part of the left anterior cerebral lobe showed that the central portion of it was broken down, and occupied by a large clot which had extended backwards into the substance of the corpus striatum and optic thalamus. The clot was about the size of a small orange, and had partly undergone absorption at the edge; central portion consisting of dark coagulated blood. The brain-substance around the clot was in a softened condition. The right side and cerebellum were quite healthy. Heart healthy, no hypertrophy, rather under natural size. Kidneys each three and a half ounces; capsules adherent; numerous large cysts existed in the cortical portion, which was in a granular condition.

*Remarks.*—This extraordinary case (for I cannot find a parallel to it on record), considered in its two leading points—(1) the degree of paralysis &c. in comparison with the extent of lesion of the motor tract of one half of the brain; (2) the length of time the man lived with such a lesion—appears to me to be worthy of publication. Firstly, that the functions of the left corpus striatum could be compromised to such an extent, as might reasonably be inferred they would be from the amount of destruction to that centre, and yet the external symptoms be so slight, is of itself strange; but when conjoined with a similar affection of those appertaining to the left thalamus opticus, the case appears truly remarkable, and would seem to me to create a diversion from the rule that though paralysis is not in ratio to the amount of lesion, yet to have such injury to two motor ganglia and no marked paralysis is certainly an exception, and by no means the rule. Secondly, the length of time the man lived is also strange, twenty days elapsing from the date of hæmorrhage to the day of his death. Looking at the case now, I have no doubt that the stimulation was good and probably prolonged his life, for there was decided improvement in his general condition after it; and it must be remarked that the pulse was not quickened, its volume only increased, nor did repeated stimulation sensibly decrease it. One very important point, however, seems to be gained from this case, and which strengthens Dr. Brown-Séquard's theory of the dissemination and not localisation of cells, and that aphasia does not necessarily have its seat in the third frontal convolution of the left side or the insula &c., for this part of the brain-substance must have suffered seriously in its cell functions, and yet aphasia was not a marked symptom.

Worcester.

LONDON HOSPITAL.—On Saturday, July 15th, it is expected that two cases of diseased femur will be submitted to the operation of subcutaneous osteotomy. In these cases Mr. Maunder purposes to employ the chisel, as he has done in other instances with favourable results.

## A SUCCESSFUL CASE OF OVARIOTOMY.

*Reported by*

THEODORE MORGAN, M.B.,

ASSISTANT COLONIAL SURGEON IN CHARGE OF THE CIVIL HOSPITAL, POINT DE GALLE, CEYLON.

HINGOHAMY, a spare Sinhalese woman, aged forty years, was admitted into the hospital at this station on the 25th of February, 1876, with the following history:—She is the mother of three children; the last one being fourteen years old. About ten months after the birth of this child, she perceived the first indication of a distension in the left side of her abdomen. The tumour subsequently increased in size, till it occupied the right side and reached two inches above the umbilicus. During this time the patient never suffered from any irregularity of her menstruation.

February 28th having been fixed for the operation, the walls and ceiling of the operating and patient's rooms were splashed with a solution of carbolic acid, and ventilated by means of revolving fans, treated in the same way. Dr. Anthonisz, with the aid of Dr. Maxham, staff-surgeon, having seen that the patient was well under chloroform, exposed the tumour by an incision three inches long on the linea alba, tapped the contents, and, as the sac was being emptied, drew it out gradually, exposing the pedicle and inadvertently causing a knuckle of the intestine to protrude. Some clean lint and a towel were immediately thrown over it, and the windows closed, to protect it from any change in the temperature. The bowel was next carefully replaced, and a double hemp ligature was passed through the pedicle, which was secured in two halves, and a second ligature put round it, and the growth was detached from its pedicle and removed. It was free from adhesions to the neighbouring structures, though, from the shortness of the pedicle, a portion of the left Fallopian tube was unavoidably removed. A vertical incision was next made on the left side, half an inch long, on the margin of Poupart's ligament, through the abdominal wall. The pedicle being returned into the abdomen, one end of the ligature was drawn through this opening so as to make the divided surface of the pedicle rest on the edges of the wound, and secured externally. The lips of the median wound were next brought together by the aid of three long needles, and the other end of the ligature secured outside this opening. Layers of lint soaked in a solution of carbolic acid, and a broad bandage round the abdomen, completed the dressing.

The patient, still under chloroform, was removed into another room, the door of which was provided with a curtain, which had been exposed to the action of carbolic acid. On recovering consciousness she was desired to preserve a semi-recumbent position and to keep quiet. Ordered two grains of opium every three hours. She slept well, and next morning (February 29th) her temperature was 102° and pulse 112. She had passed no urine, and was relieved by a catheter. The inguinal dressing was saturated with discharge. Opium continued every fourth hour; arrowroot and milk diet. On the 1st March the temperature and diet were the same as on the previous day, and the dressings were renewed. The opium was reduced to one grain. Next day (March 2nd) the temperature was 102° and pulse 100. Urine had to be drawn off on this as well as on the preceding day. On the 4th there was no fever; the bowels were relieved by enema on the 5th, and the opium was then discontinued. On the 8th the needles were withdrawn, as the wound had healed, excepting a little spot round the ligature. On the 20th the end of the ligature in the median incision came away, and was followed on the 27th by the detachment of the other end in the groin. The case progressed without an untoward symptom, and was discharged from hospital on the 16th April, forty-nine days after the operation.

In concluding the report of this interesting case, attention may briefly be drawn—first, to the "antiseptic" precautions taken during the operation and subsequent treatment: the object throughout was to provide and maintain a carbolised atmosphere, as far as the appliances in hospital permitted. Secondly, to the counter-opening above the left groin, which allowed of a ready escape for discharge, for it may reasonably be supposed that but for some such provision mischief may have resulted from the retention of septic material. It will be observed that on the third day the discharge had ceased, and the ligature used as drainage tube felt dry, the pulse simultaneously falling in frequency. Thirdly, to the semi-recumbent position of the patient, which tended greatly to favour that object.

It is also necessary to add that for ten days after the operation care was taken, by means of compress and bandage, to prevent the intestines from occupying the space left vacant by the removal of the tumour.

## ACUTE RHEUMATISM; PERICARDITIS PNEUMONIA; HYPERPYREXIA; DEATH.

BY STEWART LOCKIE, M.D.

J. R. M——, aged twenty-seven, with old acute curvature of the spine, commenced to have pain and stiffness in the knees and ankles on March 11th, 1876, but walked about at his occupation until the 13th, when he was obliged to stay in the house. Next morning the pains were much worse, and compelled him to remain in bed.

March 14th.—Evening: Was seen for the first time; has pain in knees, ankles, feet, and shoulders; there is slight swelling of right knee and ankle. First cardiac sound indistinct; no bruit. Temperature 103·4°; pulse 136. To have fifteen grains of salicin every three hours.

15th.—Morning: Has had scarcely any sleep during the night. There is slight pericardial friction at mid-sternum. Temperature 103·2°; pulse 136.

16th.—Morning: Had a better night, with some amount of sleep. Pain in the knees much better. Considerable pain in right wrist and hand. Has felt "a tightness" across the chest from an early hour this morning. Has a troublesome cough, with frothy expectoration. Pericardiac friction-sound marked, loudest over apex. Temperature 101·4°; pulse 144. Urine of a dark sherry colour, turbid, acid; specific gravity 1028; clears on first application of heat, then deposits a trace of albumen.—Evening: Cough less troublesome. Temperature 103·7°; pulse 142; respiration 24.

17th.—Morning: Had a comparatively easy night. Joint pains much better. Transverse cardiac dulness increased; friction inaudible at apex, but heard at centre of cardiac area. Dulness and small crepitations over lower half of left lung. Temperature 102·8°; pulse 144; respiration 26. Dose of salicin increased to twenty-five grains every three hours.—Evening: Has been very restless during the day, and is so still. Cough very troublesome. Temperature 103·1°; pulse 150; respiration 26. To have fifteen minims of Battley's sedative solution of opium at once, the dose to be repeated if restlessness continues; to have also half an ounce of whisky twice during the night.

15th.—Morning: Took both doses of opium, and had some sleep, with intervals of delirium. There is present considerable nervous agitation, and the eyes have a wild appearance; slight lividity of countenance. There is scarcely any pain. Cardiac dulness the same as yesterday. Temperature 104·6°; pulse 156; respiration 28. Blister over heart; whisky increased to half an ounce every two hours.—4.30 P.M.: Delirious. Temperature 105·1°; pulse 144; respiration 32. To discontinue salicin, and to have five grains of sulphate of quinine. Anticipating a further rise of temperature, and as there was no bath in the house, a portable one was borrowed, and a porter engaged to convey it to the house.—8.50 P.M.: Is still delirious. Temperature 105·4°; pulse 144; respiration 38. Ten grains more of quinine were administered. To have half an ounce of whisky every hour. He was evidently sinking fast, and through some mistake the bath had not been brought. At 11 P.M. my assistant and I left him in order to see personally why the bath had not been sent. On our return the temperature was 107·1°; pulse very feeble. The bath had just arrived, and water was being poured into it, when the patient died. The temperature a few minutes after death was 107·1°.

I regret extremely that, through the negligence of the

porter in not bringing the bath as ordered, we were unable to put in practice the remedy so successfully used by Dr. Wilson Fox and others in cases of rheumatic hyperpyrexia. This case shows, like some others that have been published, that when the temperature begins to rise to an unusual elevation there may be no time to lose.

Carlisle.

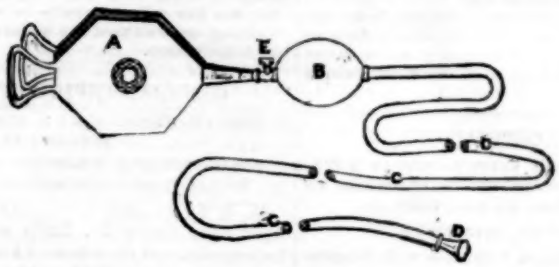
## A SIMPLE ATMOSPHERIC PUMP.

BY ALFRED KING, M.D.

SOME years ago I remember being a few miles from London, and was told of a sad accident to a working man who had just lost his life in a well. The facts were these. The pump or well had been for some time wanting repairs, and the water that had been drawn off was found to be contaminated, and a man was sent down to clean and repair the well. He had not been many minutes down before he complained of foul gas, and asked for a lighted candle to be sent down to him. This was done, but it instantly went out; and about this time the man was seen to fall down insensible. His "mate" then descended, and, with a rope round the man's body, he, with the help of those at the top, lifted him out quite dead; and the other man had a very narrow escape, being assisted up in a half-dead state. This sad event made a deep impression on my mind at the time, and the other day a very similar accident happened on the road not many miles from my house. The case was very like the other one, with just this difference. The hole was near a very large gas pipe, and the place very foul; the man had only been down a very short time, when he was seen to fall by the two men at the top, and they were afraid to go down and render assistance; so the poor fellow was in this state when I happened to ride by, and, on asking what was the matter, was told all about it.

In a very short time I procured a long garden-hose, and, by good luck, in a cottage found a pair of bellows. I tied with a string the tube on the nozzle of the bellows, and threw the end of the hose down the well just above the dead man (for dead he was), and began pumping away, I may say, for dear life. I now sent a candle down, and finding the flame remained, I and another descended and lifted the poor fellow out. Every method was tried to restore life, but without success.

When I got home I set about inventing a something to




prevent this sad loss of life to working men, and the result is the invention I offer to the notice of the profession; and as every village has its doctor, and every one, I should suppose, reads THE LANCET, it may thus become known that with this simple contrivance for pumping the atmospheric air down and into any place I have described, the foul air is diluted, and for all the purposes of working this invention may be the means of (and this is the doctor's mission) saving lives.

Balham.

# A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo ... scendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## KING'S COLLEGE HOSPITAL.

### CASES OF CLEFT PALATE.

(Under the care of Mr. HENRY SMITH.)

THE following cases, which have been recently under treatment at this hospital, illustrate the great benefit that may be obtained, even in severe cases of cleft palate, by the adoption of Sir William Fergusson's admirable device of splitting the hard palate.

CASE 1.—E. J——, aged eight years, a miserably underfed boy, was sent into the hospital on Sept. 11th, 1874. A hare-lip had been previously operated on. A cleft extended through the soft and hard palate, about one-third of an inch wide; the alveolar ridges were entire, and the vomer was slightly attached to the right edge of the cleft. The soft palate was fleshy.

He was allowed to remain in the hospital to improve his health, and on the 19th Mr. Smith operated on the soft and hard palate after the method recommended by Sir William Fergusson, by dividing the levator palati muscles, paring the edges of the cleft, and prising the bones together, by splitting the hard palate on either side, and introducing sutures through openings made in the bone by an awl.

The boy got severe constitutional disturbance, and the hole reopened in a few days. He was allowed to remain in the hospital for another month, by the end of which period the mouth had got into a healthy condition, and the boy himself had greatly improved. The operation was repeated both on the soft and hard palate on Nov. 17th. Excellent results took place, the entire palate, except a very small hole in the hard, firmly uniting in a few days.

CASE 2.—H. J——, aged nineteen, admitted Sept. 16th, 1875, with cleft through the hard and soft palates extending to within a short distance of the alveolar ridge. It was very wide, and the soft parts were thin. The general health was but poor. The patient had previously consulted a surgeon to a metropolitan hospital, who refused to interfere, probably because Sir W. Fergusson's operation on the hard palate had not then been made known.

Mr. Henry Smith operated on Sept. 20th, under chloroform. The levator palati muscles were divided; the hard palate split on either side, the bones prised together, and the parts united by sutures. Everything went on well; perfect union took place, and the patient was discharged on Oct. 19th, already improved in his speech.

CASE 3.—B. B——, aged forty-eight, admitted into King's College Hospital April 22nd, 1876, with an enormous cleft extending all through the soft and hard palates, for which he had worn a cumbersome and expensive apparatus for many years. He was desirous to have a portion even of the opening closed if possible. Mr. Henry Smith determined to try to close the soft palate, but declined to interfere with the hard, on account of the man's age. Other surgeons had been consulted, and they all discountenanced any operation.

Mr. Henry Smith operated on April 29th, dividing the levator palati muscles and closing the soft palate. There was great hæmorrhage during the operation and considerable subsequent prostration, partly from the loss of blood and partly from the effects of the chloroform; but the patient

soon rallied, and the parts took on healthy action. At that part of the gap where there was the greatest strain one of the stitches ulcerated, but the greater portion of the soft palate united in a satisfactory manner, so that the man could wear the simplest apparatus.

In the first two cases we have examples of the excellent results produced by the method proposed by Dieffenbach, and more recently adopted quite independently by Sir William Fergusson, of closing the hard palate by freely splitting the bone on each side, combined with the free division of the levator palati muscles.

The first case is especially interesting, as it shows that, although a complete failure may have taken place, the operation may be successfully undertaken a second time, even within a few weeks. As the two operations were performed by the same surgeon, it may be presumed that the same care was taken on both occasions; the failure was doubtless due, in great measure, to the weak state of the boy's health.

In the second case matters were not very encouraging for an operation; the cleft was very extensive, the soft parts were thin, and the patient was by no means in average health. The operation was, of necessity, long and exhausting, yet excellent results were obtained.

In the third case the chief element of interest is the age of the patient in connexion with the operation; for it is here shown that even in a person near fifty an extensive gap in the soft palate may at least be closed after division of the levator palati muscles.

## LONDON HOSPITAL.

### ACUTE PERIOSTITIS OF TIBIA; SUPPURATION IN KNEE-JOINT, WITH SEPARATION OF UPPER EPIPHYSIS OF TIBIA; AMPUTATION OF THIGH; RECOVERY.

(Under the care of Mr. RIVINGTON.)

ELLEN W——, aged twelve, a very thin and delicate-looking girl, noticed, on September 17th, 1875, as she was getting out of bed, that her left leg was very painful, and on looking at it she found that it was swollen. It gradually increased in size and became more painful. She came to the hospital on the 21st, and was admitted under the care of Mr. Reeves, who had charge of Mr. Rivington's wards. The temperature was 103·8°, pulse 124, and respiration 20. The patient was evidently very ill. A fluctuating swelling existed over the tibia, and an incision was made without affording much relief. On the 22nd she was sick, restless, feverish, and thirsty. On the 24th an incision was made over the crest of the tibia through the periosteum, giving exit to a large quantity of pus mixed with blood. The tibia was felt to be bare for three or four inches. The patient had previously had a rigor. She was much flushed and very thirsty. Her tongue was furred; pulse 130; temperature 100°; respiration 24.

On October 5th the patient complained of pain in the knee-joint, and Mr. Rivington, who had resumed the charge of his wards, ordered the limb to be placed on a McIntyre splint, at the same time enlarging the incision previously made to insure a freer exit for the increasing discharge. The temperature was 103·4°, and pulse 100. At this time there appeared to be little prospect of saving the limb. The constitutional disturbance was greater, and the patient was beginning to refuse her food. The knee-joint was swelling, and it was feared that either it had suppurated or it was about to become the seat of suppuration. The temperature was 103·4°, and pulse 100. Instructions were given for communication with the friends, and leave obtained for any necessary procedure. This having been done, a careful exploration of the parts was made on the 7th, the patient being placed under ether, which was administered by Mr. Boarse, the house-surgeon. The epiphysis of the tibia was found to be separating from the shaft, communication with the knee-joint established, and the soft parts with the periosteum detached for some distance from the tibia. Amputation was performed by Mr. Rivington at the lower third of the thigh, by means of a long anterior and a short posterior flap, chiefly consisting of skin and fascia, but with muscle towards the base. The elastic ligature was used, and very little blood was lost. The femoral and five smaller vessels were tied. Wire sutures were inserted to bring the flaps into apposition, and simple dressing was applied.

In reference to the progress of the patient, one or two remarks only are necessary. Although decidedly benefited by the amputation, both the pulse and temperature had a high range for some weeks. During the first few days the temperature varied between 101° and 103°. On the 14th it fell to 99°, and then for some time oscillated between that point and 101°. Normal temperature was not reached till the 24th of November. The pulse remained quick and weak for a long time, being accelerated from very slight causes. Locally the chief feature was necrosis of the lower end of the divided femur. A periosteal covering had been made for the bone, but about an inch of it lost its vitality; new bone was rapidly formed outside of the necrosed portion, and this latter began to show itself at the outer angle of the wound, the soft parts gradually separating and being separated, retracted by the action of the muscles. The necrosed portion was removed on the 4th of November. The patient sat up for the first time on the 18th November. The stump was looking well, and there was very little discharge. She gradually regained strength, and was allowed to go out at the beginning of last January. Since her discharge she has been heard of, and the last report states that she has gained greatly in weight, and has become so plump and well that she would scarcely be recognised as the same person.

## GENERAL INFIRMARY, HERTFORD.

### A CASE OF HYDROPHOBIA; ADMINISTRATION OF CHLOROFORM; DEATH.

FOR the following interesting notes we are indebted to Mr. William Odell, house-surgeon.

W. H K——, aged thirteen, was admitted on Th[illegible] April 20th, during Dr. Elin's week, with sym[illegible] hydrophobia, and the following history was obta[illegible] from himself and partly from his mother. Wh[illegible] his work at half-past six o'clock on the mor[illegible] 1st, a dog knocked him down and bit him [illegible] upper lip and below the left shoulder, the [illegible] being merely an abrasion. The boy simply w[illegible] blood from his lip and went to his work, and [illegible] for treatment until nine o'clock, when both [illegible] cauterised, and the lip sewn up by Dr. Fletch[illegible] bourne. After this the patient was seen by D[illegible] three times, and the wounds healed within a we[illegible] patient kept on with his work the whole time, and [illegible] quite well until Tuesday night, April 18th, when h[illegible] peared distressed, made a whining noise in his sleep, an[illegible] frequently awoke with a start. He went to London sight-seeing on the following day, April 19th. During the day he seemed very sadly, and said he did not feel well, but could not describe his sensations except that he had no headache, and did not feel sick. In the afternoon he seemed to "catch his breath," and said he could not get his breath well. On his return from London he was at once taken to Dr. Fletcher, who ordered him to bed, and gave him a purgative powder. The bowels, which had not been open for two days, were relieved three times after the powder. He passed a very bad night, did not sleep; for, whenever he closed his eyes he was seized with "catching of his breath." Tried to get out of bed several times, but was restrained by his father, who was watching him.

On admission at 1 P.M. the cicatrix on the lip and the mark of abrasion on the arm were quite of normal appearance. He complained that the "wind took his breath away," and that when he closed his eyes he could not get his breath (both confirmed by observation). He complained also that froth kept coming up in his mouth, and the attempt to swallow this caused slight spasm. He felt thirsty, but did not like to drink because of the catching of his breath. Temperature 99·8°; pulse 90; respiration 24, regular, fully drawn and calm, except when the slightest current of air blew upon him. The catching of breath consisted in spasmodic action of the diaphragm; the clavicles were elevated so as to almost touch the lower jaw; the lips were drawn tightly over the teeth, and the corners of the mouth depressed; the eyes became quite prominent, and the pupils dilated, though not excessively. The aspect was

quite calm except during a spasm, when it was painfully anxious. He talked quite rationally and plainly, and there was no change in tone of voice. He could not whistle, as the attempt at once caused a spasm. Some milk was taken by sheer determination, but caused immediate spasm, some of the fluid being expelled from his mouth, but the larger quantity was swallowed. He ate without difficulty, although the mere act of opening the mouth widely caused slight spasm. Tongue slightly furred on dorsum, but moist; no "lyssi" visible. Pupils rather dilated; there was slight reaction to light. Could close either eye with his finger without the slightest spasm or distress; but if, whilst one was shut, the other eye was closed, spasm was immediately set up. At 11 P.M. the temperature was 99·2°; pulse 92; respiration 40. Had dozed for a few minutes. Bowels rather relaxed; urine passed freely; abdomen tympanitic, and there was pain on pressure above pubes; priapism. Had taken some light pudding made with eggs and milk, and had also drunk some brandy-and-milk, but the effort to swallow fluid caused just as much spasm as before. Both pupils widely dilated. By ophthalmoscopic examination the media were found clear; the margin of the right optic disc not clearly defined; the vessels anastomosed on its surface and were increased in size; there was also pulsation of the retinal veins. The left disc appeared normal; there was, however, the same pulsation in the veins. The patient was continually obliged to get rid of the saliva by means of his pocket-handkerchief, as it annoyed him by accumulating in his mouth, and he did not swallow it for fear of spasm. Complained once that there was a lump in his throat and that he should be choked, but this feeling soon passed off; expression tranquil, except during a spasm.—12 o'clock (midnight): After lying perfectly quiet for some time he suddenly shrieked out and jumped out of bed into the nurse's arms, saying there was a pig in the corner of the ward. He was easily persuaded to get into bed, and thought no more of the fright and became perfectly quiet and collected until some new terror seized him. He was with some difficulty restrained when the attacks came on, tried to bite, kicked, and once, after promising to be perfectly quiet, attempted to strike with the fire-tongs which were near his bed. Subcutaneous injection of one-third of a grain of morphia had no effect. Chloroform administered.

21st.—3.30 A.M.: The patient has been under the influence of chloroform half an hour. Temperature 100·4°; pulse 120; respiration 24.—5.30 A.M.: Pulse 110; respiration 22. Character of pulse not materially altered, though at first, it was rather improved by the chloroform; the respiration, however, was much shallower.—7 A.M.: Chloroform discontinued. During the night, directly there was the least approach to returning consciousness, the patient at once cried out in the same painfully shrill tone, and the mingled expression of rage and horror was indescribable. However, in the morning, after the effects of the chloroform had passed off, he remained in a perfectly quiet state, dozing from time to time, and eventually he regained consciousness and full possession of his senses. Said he did not want anything, and that he had had a nice sleep. Appearance perfectly calm; occasionally, however, his face flushed, his eyes became prominent, and the inspiration gasping.—8 A.M.: Temperature 100·6°; pulse 108; respiration 20. Tongue covered on dorsum with a brownish fur, had regained consciousness, and spoke rationally. He seemed, for the time, quite recovered from all violent action and spasm, and took some brandy, egg, and milk. Pulse of fair volume; pupils widely dilated.—12 o'clock (noon): Had been fairly quiet and quite sensible since eight o'clock; had taken a little custard-pudding, and a small quantity of brandy and water, which was brought at his own request; he also asked for water, but did not swallow above a few teaspoonfuls. By midday he became violent, and shrieked out in the same painful way. Chloroform re-administered.—2.30 P.M.: Pulse 108; respiration 26. Chloroform discontinued for a time, and for five minutes he remained quiet and sensible, spoke quite distinctly and rationally to his mother.—5 P.M.: If allowed to recover from the full effects of chloroform the patient answered questions, but not always correctly; on the return of complete consciousness he invariably started up in bed and shrieked out until fully under the influence of the anæsthetic. Complained of pain in the epigastric region.—8 P.M.: Pulse 132. A vapour bath which was tried did not in any way relieve the spasm or facilitate breathing, although it caused the patient to perspire profusely.—9.30 P.M.: Temperature 102°; pulse 124; respiration 36. Much weaker.—11.30 P.M.: Still weaker, cried out directly there was the least approach to consciousness, but he seemed too exhausted to raise himself in bed, as he formerly did.

22nd.—1 A.M.: Died quietly, exhausted.

*Autopsy, forty-eight hours after death.*—Pia mater congested, as also was the whole brain; this congestion was most marked in the grey substance, so much so that on section it resembled very much the colour of muscle. This was particularly evident on section of the corpus striatum and optic thalamus. The divided vessels (puncta vasculosa) were extremely prominent in the white substance of the brain. Choroid plexus very much congested. (The patient had been laid on his face directly after death, and remained in that position for twelve hours.) On examining the spine there was found considerable congestion of the vessels ramifying in the cellular tissue beneath the arches of the vertebræ, especially in the cervical region, and about the position of the fifth cervical spine was a gelatinous mass extending slightly upwards and downwards, lying between the dura mater and the arches of the spinal canal. The cord, medulla, and pons were sent to Dr. Lockhart Clark, who has kindly consented to examine and report thereon. Thoracic and abdominal viscera healthy.

## HÔPITAL ST. LOUIS, PARIS.

### CASE OF EPITHELIOMA OF THE NOSE; OPERATION; RECOVERY; DEATH THIRTY-THREE DAYS AFTER OPERATION.

(Under the care of M. PÉAN.)

A. M——, forty-two years of age, servant, was admitted on the 31st January, suffering from a tumour situated at the root of the nose. Her father died quite young, but her mother is still alive and well, and is sixty-three years of age. Her brothers and sisters all died of pulmonary affections. The patient herself was mother of twelve children, ten of whom were then alive. She said she had never been ill before, and denied all history of syphilis.

Eighteen months prior to admission she noticed that she frequently bled from the nose, and that when she made use of her handkerchief she found clots of blood in its folds. These symptoms were not accompanied by pain of any sort. Shortly after this she began to experience some difficulty in breathing through the right nostril. She then consulted M. Péan for the first time, and a polypoid mass was withdrawn from the interior of the right nasal cavity. From that day the bleeding became more frequent, and only stopped when she became *enceinte* for the last time. After her confinement she noticed that she had a swelling at the upper extremity of the nose, situated on the right side. The tumour continued to make slight progress during six weeks, when she applied for the second time at the hospital.

Upon entering the hospital, the patient seemed greatly reduced in strength, owing to the frequent loss of blood. She complained of very severe headache, which troubled her mostly at night. She had grown considerably thinner, but her appetite was still good, as was also her digestion. Her courses had not returned since her last confinement. The secretion of liquid by the lachrymal gland was increased on the right side, but there was no functional disorder of the sight. Nasal breathing had become very difficult, and the patient was obliged to breathe almost exclusively through her mouth. The tumour had invaded the whole of the upper half of the nose, and protruded to the right, where it formed a mass about the size of a pigeon's egg. The skin was tightly stretched and was very vascular, presenting a shiny appearance.

Feb. 5th.—An operation was performed. An incision was made down each side of the nose, that on the right being made to pass as near the internal angle of the right eye as possible; a transverse incision joined the two lateral ones just above the inferior extremity of the organ; the bones proper to the nose were cut away, as also the inner wall of the nasal fossa, and the tumour was found to extend back as far as the posterior orifices of the fossæ; the mucous

soon rallied, and the parts took on healthy action. At that part of the gap where there was the greatest strain one of the stitches ulcerated, but the greater portion of the soft palate united in a satisfactory manner, so that the man could wear the simplest apparatus.

In the first two cases we have examples of the excellent results produced by the method proposed by Dieffenbach, and more recently adopted quite independently by Sir William Fergusson, of closing the hard palate by freely splitting the bone on each side, combined with the free division of the levator palati muscles.

The first case is especially interesting, as it shows that, although a complete failure may have taken place, the operation may be successfully undertaken a second time, even within a few weeks. As the two operations were performed by the same surgeon, it may be presumed that the same care was taken on both occasions; the failure was doubtless due, in great measure, to the weak state of the boy's health.

In the second case matters were not very encouraging for an operation; the cleft was very extensive, the soft parts were thin, and the patient was by no means in average health. The operation was, of necessity, long and exhausting, yet excellent results were obtained.

In the third case the chief element of interest is the age of the patient in connexion with the operation; for it is here shown that even in a person near fifty an extensive gap in the soft palate may at least be closed after division of the levator palati muscles.

## LONDON HOSPITAL.

ACUTE PERIOSTITIS OF TIBIA; SUPPURATION IN KNEE-JOINT, WITH SEPARATION OF UPPER EPIPHYSIS OF TIBIA; AMPUTATION OF THIGH; RECOVERY.

(Under the care of Mr. RIVINGTON.)

ELLEN W——, aged twelve, a very thin and delicate-looking girl, noticed, on September 17th, 1875, as she was getting out of bed, that her left leg was very painful, and on looking at it she found that it was swollen. It gradually increased in size and became more painful. She came to the hospital on the 21st, and was admitted under the care of Mr. Reeves, who had charge of Mr. Rivington's wards. The temperature was 103·8°, pulse 124, and respiration 20. The patient was evidently very ill. A fluctuating swelling existed over the tibia, and an incision was made without affording much relief. On the 22nd she was sick, restless, feverish, and thirsty. On the 24th an incision was made over the crest of the tibia through the periosteum, giving exit to a large quantity of pus mixed with blood. The tibia was felt to be bare for three or four inches. The patient had previously had a rigor. She was much flushed and very thirsty. Her tongue was furred; pulse 130; temperature 100°; respiration 24.

On October 5th the patient complained of pain in the knee-joint, and Mr. Rivington, who had resumed the charge of his wards, ordered the limb to be placed on a McIntyre splint, at the same time enlarging the incision previously made to insure a freer exit for the increasing discharge. The temperature was 103·4°, and pulse 100. At this time there appeared to be little prospect of saving the limb. The constitutional disturbance was greater, and the patient was beginning to refuse her food. The knee-joint was swelling, and it was feared that either it had suppurated or it was about to become the seat of suppuration. The temperature was 103·4°, and pulse 100. Instructions were given for communication with the friends, and leave obtained for any necessary procedure. This having been done, a careful exploration of the parts was made on the 7th, the patient being placed under ether, which was administered by Mr. Boarse, the house-surgeon. The epiphysis of the tibia was found to be separating from the shaft, communication with the knee-joint established, and the soft parts with the periosteum detached for some distance from the tibia. Amputation was performed by Mr. Rivington at the lower third of the thigh, by means of a long anterior and a short posterior flap, chiefly consisting of skin and fascia, but with muscle towards the base. The elastic ligature was used, and very little blood was lost. The femoral and five smaller vessels were tied. Wire sutures were inserted to bring the flaps into apposition, and simple dressing was applied.

In reference to the progress of the patient, one or two remarks only are necessary. Although decidedly benefited by the amputation, both the pulse and temperature had a high range for some weeks. During the first few days the temperature varied between 101° and 103°. On the 14th it fell to 99°, and then for some time oscillated between that point and 101°. Normal temperature was not reached till the 24th of November. The pulse remained quick and weak for a long time, being accelerated from very slight causes. Locally the chief feature was necrosis of the lower end of the divided femur. A periosteal covering had been made for the bone, but about an inch of it lost its vitality; new bone was rapidly formed outside of the necrosed portion, and this latter began to show itself at the outer angle of the wound, the soft parts gradually separating and being separated, retracted by the action of the muscles. The necrosed portion was removed on the 4th of November. The patient sat up for the first time on the 18th November. The stump was looking well, and there was very little discharge. She gradually regained strength, and was allowed to go out at the beginning of last January. Since her discharge she has been heard of, and the last report states that she has gained greatly in weight, and has become so plump and well that she would scarcely be recognised as the same person.

## GENERAL INFIRMARY, HERTFORD.

A CASE OF HYDROPHOBIA; ADMINISTRATION OF CHLOROFORM; DEATH.

For the following interesting notes we are indebted to Mr. William Odell, house-surgeon.

W. H K——, aged thirteen, was admitted on Thursday, April 20th, during Dr. Elin's week, with symptoms of hydrophobia, and the following history was obtained, partly from himself and partly from his mother. Whilst going to his work at half-past six o'clock on the morning of April 1st, a dog knocked him down and bit him through the upper lip and below the left shoulder, the latter wound being merely an abrasion. The boy simply wiped away the blood from his lip and went to his work, and did not apply for treatment until nine o'clock, when both wounds were cauterised, and the lip sewn up by Dr. Fletcher, of Broxbourne. After this the patient was seen by Dr. Fletcher three times, and the wounds healed within a week. The patient kept on with his work the whole time, and seemed quite well until Tuesday night, April 18th, when he appeared distressed, made a whining noise in his sleep, and frequently awoke with a start. He went to London sight-seeing on the following day, April 19th. During the day he seemed very sadly, and said he did not feel well, but could not describe his sensations except that he had no headache, and did not feel sick. In the afternoon he seemed to "catch his breath," and said he could not get his breath well. On his return from London he was at once taken to Dr. Fletcher, who ordered him to bed, and gave him a purgative powder. The bowels, which had not been open for two days, were relieved three times after the powder. He passed a very bad night, did not sleep; for, whenever he closed his eyes he was seized with "catching of his breath." Tried to get out of bed several times, but was restrained by his father, who was watching him.

On admission at 1 P.M. the cicatrix on the lip and the mark of abrasion on the arm were quite of normal appearance. He complained that the "wind took his breath away," and that when he closed his eyes he could not get his breath (both confirmed by observation). He complained also that fresh kept coming up in his mouth, and the attempt to swallow this caused slight spasm. He felt thirsty, but did not like to drink because of the catching of his breath. Temperature 99·8°; pulse 90; respiration 24, regular, fully drawn and calm, except when the slightest current of air blew upon him. The catching of breath consisted in spasmodic action of the diaphragm; the clavicles were elevated so as to almost touch the lower jaw; the lips were drawn tightly over the teeth, and the corners of the mouth depressed; the eyes became quite prominent, and the pupils dilated, though not excessively. The aspect was

quite calm except during a spasm, when it was painfully anxious. He talked quite rationally and plainly, and there was no change in tone of voice. He could not whistle, as the attempt at once caused a spasm. Some milk was taken by sheer determination, but caused immediate spasm, some of the fluid being expelled from his mouth, but the larger quantity was swallowed. He ate without difficulty, although the mere act of opening the mouth widely caused slight spasm. Tongue slightly furred on dorsum, but moist; no "lyssi" visible. Pupils rather dilated; there was slight reaction to light. Could close either eye with his finger without the slightest spasm or distress; but if, whilst one was shut, the other eye was closed, spasm was immediately set up. At 11 P.M. the temperature was 99·2°; pulse 92; respiration 40. Had dozed for a few minutes. Bowels rather relaxed; urine passed freely; abdomen tympanitic, and there was pain on pressure above pubes; priapism. Had taken some light pudding made with eggs and milk, and had also drunk some brandy-and-milk, but the effort to swallow fluid caused just as much spasm as before. Both pupils widely dilated. By ophthalmoscopic examination the media were found clear; the margin of the right optic disc not clearly defined; the vessels anastomosed on its surface and were increased in size; there was also pulsation of the retinal veins. The left disc appeared normal; there was, however, the same pulsation in the veins. The patient was continually obliged to get rid of the saliva by means of his pocket-handkerchief, as it annoyed him by accumulating in his mouth, and he did not swallow it for fear of spasm. Complained once that there was a lump in his throat and that he should be choked, but this feeling soon passed off; expression tranquil, except during a spasm.—12 o'clock (midnight): After lying perfectly quiet for some time he suddenly shrieked out and jumped out of bed into the nurse's arms, saying there was a pig in the corner of the ward. He was easily persuaded to get into bed, and thought no more of the fright and became perfectly quiet and collected until some new terror seized him. He was with some difficulty restrained when these attacks came on, tried to bite, kicked, and once, after promising to be perfectly quiet, attempted to strike with some fire-tongs which were near his bed. Subcutaneous injection of one-third of a grain of morphia had no effect. Chloroform administered.

April 21st.—2 30 A.M.: The patient has been under the influence of chloroform half an hour. Temperature 100·4°; pulse 120; respiration 24.—5 30 A.M.: Pulse 110; respiration 22. Character of pulse not materially altered, and, at first, it was rather improved by the chloroform; the respiration, however, was much shallower.—7 A.M.: Chloroform discontinued. During the night, directly there was the least approach to returning consciousness, the patient at once cried out in the same painfully shrill tone, and the mingled expression of rage and horror was indescribable. However, in the morning, after the effects of the chloroform had passed off, he remained in a perfectly quiet state, dozing from time to time, and eventually he regained consciousness and full possession of his senses. Said he did not want anything, and that he had had a nice sleep. Appearance perfectly calm; occasionally, however, his face flushed, his eyes became prominent, and the inspiration gasping.—8 A.M.: Temperature 100·6°; pulse 108; respiration 20. Tongue covered on dorsum with a brownish fur, had regained consciousness, and spoke rationally. He seemed, for the time, quite recovered from all violent action and spasm, and took some brandy, egg, and milk. Pulse of fair volume; pupils widely dilated.—12 o'clock (noon): Had been fairly quiet and quite sensible since eight o'clock; had taken a little custard-pudding, and a small quantity of brandy and water, which was brought at his own request; he also asked for water, but did not swallow above a few teaspoonfuls. By midday he became violent, and shrieked out in the same painful way. Chloroform re-administered.—2.30 P.M.: Pulse 108; respiration 26. Chloroform discontinued for a time, and for five minutes he remained quiet and sensible, spoke quite distinctly and rationally to his mother.—5 P.M.: If allowed to recover from the full effects of chloroform the patient answered questions, but not always correctly; on the return of complete consciousness he invariably started up in bed and shrieked out until fully under the influence of the anæsthetic. Complained of pain in the epigastric region.—8 P.M.: Pulse 132. A vapour bath which was tried did not in any way relieve the spasm or facilitate breathing, although it caused the patient to perspire profusely.—9.30 P.M.: Temperature 102°; pulse 124; respiration 36. Much weaker.—11.30 P.M.: Still weaker, cried out directly there was the least approach to consciousness, but he seemed too exhausted to raise himself in bed, as he formerly did.

22nd.—1 A.M.: Died quietly, exhausted.

*Autopsy, forty-eight hours after death.*—Pia mater congested, as also was the whole brain; this congestion was most marked in the grey substance, so much so that on section it resembled very much the colour of muscle. This was particularly evident on section of the corpus striatum and optic thalamus. The divided vessels (puncta vasculosa) were extremely prominent in the white substance of the brain. Choroid plexus very much congested. (The patient had been laid on his face directly after death, and remained in that position for twelve hours.) On examining the spine there was found considerable congestion of the vessels ramifying in the cellular tissue beneath the arches of the vertebræ, especially in the cervical region, and about the position of the fifth cervical spine was a gelatinous mass extending slightly upwards and downwards, lying between the dura mater and the arches of the spinal canal. The cord, medulla, and pons were sent to Dr. Lockhart Clark, who has kindly consented to examine and report thereon. Thoracic and abdominal viscera healthy.

## HÔPITAL ST. LOUIS, PARIS.

### CASE OF EPITHELIOMA OF THE NOSE; OPERATION; RECOVERY; DEATH THIRTY-THREE DAYS AFTER OPERATION.

(Under the care of M. PÉAN.)

A. M——, forty-two years of age, servant, was admitted on the 31st January, suffering from a tumour situated at the root of the nose. Her father died quite young, but her mother is still alive and well, and is sixty-three years of age. Her brothers and sisters all died of pulmonary affections. The patient herself was mother of twelve children, ten of whom were then alive. She said she had never been ill before, and denied all history of syphilis.

Eighteen months prior to admission she noticed that she frequently bled from the nose, and that when she made use of her handkerchief she found clots of blood in its folds. These symptoms were not accompanied by pain of any sort. Shortly after this she began to experience some difficulty in breathing through the right nostril. She then consulted M. Péan for the first time, and a polypoid mass was withdrawn from the interior of the right nasal cavity. From that day the bleeding became more frequent, and only stopped when she became *enceinte* for the last time. After her confinement she noticed that she had a swelling at the upper extremity of the nose, situated on the right side. The tumour continued to make slight progress during six weeks, when she applied for the second time at the hospital.

Upon entering the hospital, the patient seemed greatly reduced in strength, owing to the frequent loss of blood. She complained of very severe headache, which troubled her mostly at night. She had grown considerably thinner, but her appetite was still good, as was also her digestion. Her courses had not returned since her last confinement. The secretion of liquid by the lachrymal gland was increased on the right side, but there was no functional disorder of the sight. Nasal breathing had become very difficult, and the patient was obliged to breathe almost exclusively through her mouth. The tumour had invaded the whole of the upper half of the nose, and protruded to the right, where it formed a mass about the size of a pigeon's egg. The skin was tightly stretched and was very vascular, presenting a shiny appearance.

Feb. 5th.—An operation was performed. An incision was made down each side of the nose, that on the right being made to pass as near the internal angle of the right eye as possible; a transverse incision joined the two lateral ones just above the inferior extremity of the organ; the bones proper to the nose were cut away, as also the inner wall of the nasal fossa, and the tumour was found to extend back as far as the posterior orifices of the fossæ; the mucous

membrane was detached in its whole extent. Very little hæmorrhage occurred during the operation, and what little did occur soon stopped of its own accord.

6th.—The patient passed a good night, and said she felt very comfortable. Wound bled slightly while it was being dressed. Temperature: Morning, 38·2°; evening, 38·4° C.; (100·8° and 101·2° F.;) pulse 90.

7th.—Morning: Temperature 38° C. (100·4° F.); pulse 85. She continued to feel well; had no symptoms of any brain-disorder; constipated. Evening temperature 38·2° C.

8th.—Temperature 38°; pulse 85. The patient slept well and had a good appetite; tongue very clean. From this time she continued to improve without a bad symptom; her strength had increased considerably, and she had grown fatter. On March 9th she left the hospital, but was instructed to come every day to have her wound dressed.

On March 10th, whilst on her way to the hospital, she suddenly fell down in the street and was brought into the hospital on a litter. Upon examination she was found to be almost completely paralysed. Speech was impossible. Her face was of a pale ashy hue, presenting the aspect of death. There was a slight hæmorrhage from the wound. The heart-sounds were almost inaudible and the pulse imperceptible. Two hours afterwards she died.

*Autopsy, forty-eight hours after death.*—A prolongation of the tumour was found in both frontal sinuses. Their posterior walls were perforated, and pressure was being exercised on the anterior lobes of the brain. In the liver there were found several cancerous deposits, as also in the right kidney. The heart was hypertrophied, and was the seat of fatty degeneration.

---

# Reviews and Notices of Books.

*The Natural History and Relations of Pneumonia.* By OCTAVIUS STURGES. London: Smith and Elder. 1876.

DR. STURGES' monograph on pneumonia is founded on papers which have been published during the last ten years, and in which he has discussed certain questions referring to some of the characters of the disease. These have been supplemented by the additions necessary to make a systematic description complete.

The opening chapter contains an interesting sketch of Pneumonia in History, comprehending an enumeration of the recorded epidemics of pneumonia. To these we have before referred. In the second chapter, on the Forms of Pneumonia, the way is cleared by the elimination from discussion of a large number of lung-changes, more or less allied in anatomical characters to that to which Dr. Sturges would limit the name, and which alone forms the subject of his work—namely, acute asthenic pneumonia. "There is a disease—pneumonia—of which the most prominent local manifestation is hyperæmia and hepatisation; and there is beside the anatomical condition of hyperæmia or of hepatisation, both nearly associated with anasarca, apt to supervene in the course of many diseases," but which he excludes entirely from consideration.

The first half of the book deals with the natural history, the varieties, and the morbid anatomy of pneumonia. A detailed account of a common disease whose characters have been long known and well studied necessarily traverses a large area of familiar ground. And this first half of the book does not pass beyond the knowledge on the subject which is the common property of the profession, and is a topic of the everyday clinical and systematic teaching in our schools. The information given is, however, well arranged in the light of the author's personal experience. The morbid anatomy is of course confined to a narrow field—the red hepatisation, and the grey and yellow changes which it undergoes. The change of colour from red to grey Dr. Sturges ascribes less to any change in the character of the exudation than to its amount; "its increased quantity squeezes the blood out of the lung, and it is probable that the power of the circulation to overcome this resistance is maintained up to a very late period, and that our terms are less applicable to the living than to the dead lung." But this is surely to underrate the extent to which the colour of red hepatisation is dependent on blood, not in but out of the vessels, and to underrate also the natural effect of the degenerative changes in the exudation which have certainly commenced in the grey stage, and quickly become sufficiently obvious in the diminished consistence of the tissue.

In the second half of the book the forms of lung consolidation distinguishable from pneumonia, the influence of climate in producing pneumonia, the pathology of the disease, its relation to phthisis and tubercle, and the history and statistics of various forms of treatment, are the subjects of successive chapters, and afford scope for some originality in their discussion. In the distinction from pneumonia of allied changes in the lung clinical characters are almost exclusively relied upon. "A number of distinct processes of disease ('hypostatic pneumonia,' infantile lobular catarrh, scattered consolidation around gangrene or tubercle, &c.), each with its own history as to origin, progress, and consequence, are yet all knit together by virtue of common histological characters.....all exhibit within the pulmonary alveoli not only those proliferative cell elements which we call epithelial, but escaped corpuscles also."

The causes of pneumonia are discussed by the light rather of wide statistics of registrar-generals' and other reports than by the collection of cases. The chief conclusion is that the effect of cold can be traced much less distinctly in the mortality from pneumonia than in that from bronchitis.

The relation of pneumonia to phthisis sinks into an unimportant position in consequence of the limited sense in which the word pneumonia is understood, and this fact renders the antagonism which Dr. Sturges seems to assume to exist between his own views and those of certain authorities on the subject much more apparent than real.

The chapters on the treatment of pneumonia comprehend a lengthy outline of that adopted at various times and by various schools, and terminate with a description of the system in usual employment at the present day. A series of appendices describe the mode of production of crepitant rhonchus, the range of temperature in pneumonia, a series of illustrative cases and tables, and some statistics of treatment.

The work is written in a clear and interesting style, and the illustrations of the pathological histology of pneumonia are good.

---

*Morocco and the Moors.* By ARTHUR LEARED, M.D., F.R.C.P. London: Sampson Low, Marston, and Co.

PERHAPS there is no part of the world within easy distance of Europe which has been so neglected as that north-western portion of Africa extending from Mogador to a point opposite Gibraltar—some four hundred miles in extent. The explorer, naturalist, and ethnologist will find fresh ground for research and speculation in a land which was the cradle of those adventurous people who conquered a European race pre-eminent in art and arms, and who left the impress of their genius deep on the social customs and architecture of the vanquished. It is a country of special interest to the physician and the consumptive invalid, by reason of its delightful climate, and it is to this that we must particularly confine ourselves.

We cannot help glancing incidentally at the practice of medicine in Morocco, which is of the rudest description, as the following custom, out of many recorded, will show. In treating certain diseases "they select the outlet of a sewer

and throw into the filthy liquid which flows from it seven eggs, broken up one by one. These are well mixed with the sewage. Prayers are then offered to demons, and the horrible mixture is swallowed seven times." This "liquid manure" treatment is chiefly affected by the women of Mogador. The next writer on the etiology of typhoid should visit this town.

An interesting account of a visit to a leper village is given. The lepers, about two hundred in number, form a community apart, and have a mosque, a prison, and a market of their own; they buy and sell, and also cultivate the land. Many of them showed no outward sign of disease, while in others a tubercle or two on the face was all that made their separation imperative. "Washing at the sacred well is all that is required or attempted in the way of cure."

To advert to the climate of Morocco, which is what more particularly concerns us. Tangier and Mogador, its two seaports, appear destined to become, at no distant date, health-resorts for chest sufferers. Of the two the latter possesses, perhaps, the finest climate, but Tangier has the great advantages of being far more accessible, while the accommodation is good and the cost of living decidedly cheap. The ordinary summer temperature ranges between 78° and 82° F. The mean temperature of winter is about 56° F. As an example of the steadiness of temperature, the author states that of twenty-three observations made by him at almost every hour of the day and night, between Sept. 15th and 23rd inclusive, the thermometer ranged between 72° and 78° F., while the mean was 74·2° F. Mogador, although approaching the tropics, has a beautiful and enjoyable climate, and, in spite of sanitary imperfections, the town is remarkably healthy. Its accommodation for European visitors is, however, as yet very limited. An appendix to the book contains an elaborate account of the drugs in use in the country, all classified, which must have cost the author much time and labour. A good deal of valuable information is given respecting the laws and government of Morocco, its religion and education, agriculture, manufactures, and trades, while there is much that will interest the sportsman. Altogether Dr. Leared's book is eminently readable and instructive.

---

*The Journal of Anatomy and Physiology.* Vol. X., Part III. 1876. Edited by Professors HUMPHRY, TURNER, FOSTER, and RUTHERFORD. London: Macmillan and Co.

THIS number contains many very valuable papers. Amongst the more important are—1. A Note on the relative powers of fresh and previously used Pepsine in the digestion of Albumen, in which Dr. Arthur Ransome shows that pepsine that has been used is more powerful and active than fresh pepsine, and connects it with the increase of catalytic power gained by many substances when finely divided; with the spontaneous changes that all colloidal substances undergo with lapse of time; with the recent experiments of Heidenhain, showing that the ferment of the pancreas increases in strength after death; and with the observations of Thiersch and Sanderson on the increasing virulence of cholera excreta during a period of four to five days after their emission. 2. Contributions to the Anatomy of the Cutis of the Dog, with two illustrative plates, by Dr. Stirling. The best mode of developing the several structures was found to be by partially digesting them; the sweat glands were then seen to be very numerous. A description is given of the erectores pili (which are composed of muscular and elastic tissue), of the distribution of the bloodvessels, &c. 3. Observations on Taste Goblets in the Epiglottis of the Dog and Cat, by R. H. Schofield, with a plate. 4. The Physiological Action of the Salts of Beryllium, Aluminium, Yttrium, and Cerium, by Dr. James Blake. These metals seem to act on the capillaries, and when introduced into the blood cause sudden lowering of the blood-pressure. 5. Note on the Abdominal Pores and Urogenital Sinus of the Lamprey, by J. C. Ewart. 6. The Length of the Systole of the Heart estimated from Sphygmographic Tracings, by Edgar Thurston. This he finds to be constant for any given pulse-rate in the radial artery at the wrist, but varying as the cube-root of the rapidity. 7. On the Mode of Oviposition of Amphioxus, by Mr. A. Milnes Marshall. 8. On the Structure of the Heart of the Snail, by Francis Darwin. It is composed of unmistakably *striated* muscular tissue. 9. Note on the Effects of Division of the Sympathetic Nerve of the Neck in young individuals, by Dr. Stirling. He finds that it is followed by hypertrophy of the ear of the side operated on. 10. On the Structure of the non-gravid Uterine Mucous Membrane of the Kangaroo. And, 11. A Note on the Dentition of the Narwhal, by Professor Turner. 12. On the Development of the Elasmobranch Fishes, by F. M. Balfour—the continuation of a very important paper. 13. Remarks on the Anatomy of the Arms of the Crinoids, by P. Herbert Carpenter. 14. Effects of Upas antiar on the Frog's Heart, by M. Foster, M.D. 15. Variations in the Arrangements of the Extensor Muscles of the Forearm, by John Curnow. 16. Dr. Brunton describes the physiological action of Condurango, which he finds to be practically inert; and also gives a simple Method of demonstrating the Effect of Heat and Poisons upon the Heart of the Frog. 17. Note on Pflüger's Law of Contraction, by George Berry and Professor Rutherford. 18. Note on the Action of the Internal Intercostal Muscles, by Professor Rutherford. 19. The Oxidation of Urea, by James Reoch. 20. An improved Freezing Microtome, by Richard Hughes. In addition there is the usual Report on Physiology, by Dr. Stirling. Altogether it will be seen the contents are unusually varied and excellent.

---

*The Quarterly Journal of Microscopical Science.* Edited by FRANK PAYNE, E. RAY LANKESTER, and WILLIAM ARCHER. No. LXIII. July, 1876. London: Churchills.

THE chief memoirs in this part are:—1. On the Formation of Bloodvessels, as observed in the omentum of young rabbits, by Dr. Thin, who finds that the development of the bloodvessels takes place by an escape of first the fluid and finally of the formed elements of the blood from the vascular system into certain spaces. The establishment of the blood-current is speedily followed by the formation around the current of a membranous wall which is impermeable for an injection mass or the blood, and the process is complete. 2. On the Structure of Muscular Fibre, by Dr. Thin, with a plate. Dr. Thin employs logwood and glycerine in different proportions, by which means he is enabled clearly to demonstrate the presence of the numerous nuclei of muscular tissue, and to isolate the primary bundles or fibre. These he finds are enveloped by square cells, similar to those investing tendinous fasciculi, and hitherto undescribed. 3. Mr. Jeffrey Bell gives an interesting account of the recent researches that have been made into the history of Bacteria—the general tendency of which paper is to show that several genera and species of these minute organisms can be established; the two main divisions being those in which the cells are free, or united by an intercellular substance, and those in which the cells are united in rows. 4. Mr. Lankester describes in further detail Bacterium rubescens. 5. Mr. Archer contributes a valuable paper entitled "A *Résumé* of recent contributions to our knowledge of Fresh-water Rhizopoda," the present article being devoted to the Heliozoa. 6. Mr. Darwin describes the process of aggregation in the tentacles of Drosera rotundifolia. 7. Mr. Lankester makes some observations on the Shell-gland of Cyclas and the Planula of

Linnæus. And, lastly, Mr. Moseley gives a note on Mihakowic's new method of Embedding—viz., by a mixture of gelatine and glycerine, which sets quickly and is said to answer excellently for all delicate preparations.

---

*The Native Races of the Pacific States of North America.* By HENRY HOWE BANCROFT. 5 vols. 8vo. Longmans and Co. 1875.

THIS handsomely printed work is best described in the words of the author: "In these five volumes," he writes in the preface, "besides information acquired from sources not therein named, are condensed the researches of twelve hundred writers, a list of whose works, with the edition used, is given in this volume. I have endeavoured to state fully and clearly in my text the substance of the matter, and, in reaching my conclusions, to use due discrimination as to the respective value of different authorities." We express no opinion of the anthropological value of this work. It abounds with matter, historical, mythical, and ethnological, as curious as interesting. But in the chapter devoted to the Origin of the Americans (Vol. V.), ordinary readers, we apprehend, will be startled by the statements of the Book of Mormon, as to the settlement of America by the Jews, being gravely quoted as part of the discussion.

---

*A Manual of Operative Surgery on the Dead Body.* By THOMAS SMITH, F.R.C.S., Surgeon to, and Lecturer on Anatomy at, St. Bartholomew's Hospital, &c.; and WILLIAM J. WALSHAM, F.R.C.S., Demonstrator of Anatomy and Operative Surgery at St. Bartholomew's Hospital, &c. Second Edition. London: Longmans, Green, and Co. 1876.

THE first edition of this manual was published many years ago (1859). We have had no opportunity of comparing it with that now before us; but we may content ourselves with saying that we have carefully looked through the present edition, and have come to the conclusion that it is a capital book. It is clear and to the point, without being too scanty in information and description, and altogether it forms about the best guide with which we are acquainted. The descriptions are accompanied by very useful and pertinent observations, and illustrated by excellent woodcuts.

---

*The Moon and the Condition and Configurations of its Surface.* By EDMUND NEISON, Fellow of the Royal Astronomical Society, &c. 8vo; pp. 576. Longmans and Co. 1876.

THIS work, although designed for astronomers, contains much to interest all readers who have a liking for astronomical subjects. Mr. Neison's discussion of the physical condition of the moon's surface, of the probable changes of the surface, and of the moon's atmosphere, seems to us to be a model of thoughtful and cautious reasoning and clear expression. The greater bulk of the work is formed by a detailed description of the moon's surface, illustrated by numerous admirably-executed maps.

---

## PLAGUE, CHOLERA, AND QUARANTINE.

WE have been favoured with a communication from a gentleman representing Messrs. Gray, Dawes, and Co., recapitulating the evidence upon which their opinions have been founded as to the non-existence, or, at the worst, the highly exaggerated accounts, of plague in Mesopotamia. This evidence appears to have been almost wholly derived from their business agents, and the agents of other English houses of business in Turkish Arabia. Once only do they refer to information derived from the British Consulate at Bagdad — namely, in the beginning of April, when they quote a telegram from Surgeon-Major Colvill, which they misinterpreted from want of previous information, which, though familiarly known in England, does not appear to have been known to the agents of these commercial houses on the spot. We are informed that since April the British political agents in the Persian Gulf have given all needful news and warnings to British ships there; but of this Messrs. Gray, Dawes, and Co. also say nothing. Not less curious is the absence of all knowledge on the part of this firm of the sources of correct information as to the presence and general progress of epidemic disease which exist in Turkish Arabia, and, let us add also, in Persia. For Messrs. Gray, Dawes, and Co. labour under as great difficulties in determining the value of information as to pestilential disease from Russian as well as from Turkish and English sources. Of the Turkish sanitary administration in Bagdad, with its well-known chief, Dr. Paduan, or of the general sanitary administration of Constantinople, and of the sources of information possessed by the two bodies, and which is open to the British world, checked by such competent observers as Mr. Colvill and Dr. Dickson, the firm seem to be ignorant. Equally ignorant they appear to be of the means of information afforded from Teheran with the aid of men like Sir W. Dickson, Dr. Tholozan, Dr. Castaldi, and others (to say nothing of the representatives of Government in that city, and Tabriz, and other localities in north-western Persia and Trans-Caucasia). Now, the history of recent plague in Persia and Turkish Arabia has been worked out by the medical men referred to up to the termination of last year, and is to be found published, in more or less detail, in various scientific journals in this country and abroad, including THE LANCET. Moreover, admirable summaries of this information have been published from time to time in the columns of *The Times*. Yet all these sources of trustworthy information appear to have been blank to the firm.

The existence of plague in Mesopotamia, and we must add now in Persia, must, unhappily, be admitted; but it does not thence follow that the quarantine measures which have been adopted on this account by the Turkish and Egyptian Governments are either necessary or justifiable. In their communication Messrs. Gray, Dawes, and Co. state that, while foreign vessels coming into Turkish and Egyptian ports from the Persian Gulf receive every indulgence, the cargoes and passengers of British steamers under similar circumstances of voyage are discharged in *quarantine*, the cargo kept in boats for fifteen days and then landed for further process—namely, the bales and boxes to be opened and fumigated. The loss inflicted upon the merchants and shipowners by these measures is, they state, beyond conception. Here is surely a great argument for the interference of Government and for enlisting public feeling in this subject—the difference of treatment meted to the British shipowner and merchant from the shipowners and merchants of other countries by the Turkish and Egyptian Governments. An authentic statement in detail of the practice of quarantine at the present time in Turkish and Egyptian ports, with reference to plague in Mesopotamia, would be of real service, and here, we apprehend, Messrs. Gray, Dawes, and Co. would be on indisputable ground.

Recent outbreaks of cholera in Western India have excited some uneasiness in the Persian Gulf, and in Egyptian and Turkish ports on the Red Sea. Indeed, this uneasiness seems to have been propagated along the pilgrim-route from India to the Shiah shrines on the Euphrates, and vague rumours of cholera have contributed, with the prevalence of plague, to unsettle the populations bordering the Euphrates and Tigris, and have, we believe, extended even into Syria. In connexion with these rumours, it is well that it should be known that early in the year a consolidated and amended Native Passenger-Ships Act was passed by the Indian Government. This Act was first passed, if we mistake not, in 1858, and some of its provisions are devised with special regard to preventing the dispersion of infectious diseases, especially of cholera, from the Indian coast. We would invite communications on the sufficiency of the Act for this purpose from those who are acquainted with native shipping and trade on the Indian coast. The subject is one of great and growing interest.

THE LANCET.

LONDON: SATURDAY, JULY 15, 1876.

THE very large and influential deputation that waited upon the Home Secretary on Monday last to protest against the present scope of the Vivisection Bill shows most indubitably the way in which that Bill is regarded by the medical profession. They consider it degrading to them, and resent it as little short of insulting. And the Government has itself to thank for the revulsion of feeling that has taken place. The profession knew that the most exaggerated and ridiculous statements had been circulated in regard to vivisection in this country, and that a popular outcry had been raised on very slender foundations, which, as it gained in force, lost all sense of discrimination and reasonableness. They were quite ready to have the subject investigated by a Royal Commission, and this was done. Although nothing was proved to indicate the necessity for legislation in this respect, the profession were content to accept any reasonable measure based upon the recommendations in the Report of the Royal Commission. The present Bill, as we declared from the first, is altogether in excess of the requirements of the case, goes beyond such recommendations, and, as anyone might have predicted, has evoked an expression of indignant remonstrance. That a man so thoroughly well-informed and conscientious as Lord CARDWELL, was one of the large majority of the Senate of the University of London that decided on memorialising the Government that the provisions of the Bill might be so modified as to meet the objections raised against it by the Medical Council, is conclusive to our minds as to the fact of there being a radical difference between the recommendations of the Commission and the Bill. As Mr. SIMON urged, every one must respect the motives which led to its introduction, and would be prepared to accept the rectitude of Lord CARNARVON'S intentions; and, indeed, to accept the restrictions, which Clauses 3, 4, and 5 proposed to enact, as moral obligations; but it was a different thing when it was proposed to convert this moral obligation into matters of police obligation, and when it was proposed that physiologists' researches should be conducted under the Home Office, with certificates, and a licensing system as elaborate as if the men of science were convicts on tickets-of-leave.

It is certainly a strange anomaly that the infliction of pain in regard to certain animals is made penal only when it is inflicted for the purposes of acquiring knowledge, and the difficulty connected with sports and the infliction of pain on animals for the gratification of our own animal appetites or selfish pleasures has not been surmounted by those who are horrified at vivisection. Although we may heartily respect the honest convictions of Mr. RICHARD HOLT HUTTON, who thinks it consistent with a manly and straightforward course to resign his seat in the Senate of the University of London, in order that he may be untrammelled in action, we cannot shut our eyes to the fact that there is, in other quarters, a large amount of cant and pharisaism abroad in this matter. Even Mr. HUTTON and other intelligent opponents of vivisection, as it seems to us, ground their objections on some exceptional statements and opinions which are altogether repudiated by experimenters in this country.

The speeches made at the Home Office by the gentlemen who took part in the deputation were generally able, some of them especially so. The discussion was, indeed, uncommonly interesting, and the Home Secretary's difficult task has already begun. We concur with him in thinking that as the Bill stands the person most to be pitied is the Secretary of State, but we have no belief in the Bill becoming law in its present shape. The objections to it are too many and forcible, and they were urged with a clearness and incisiveness that cut through the arguments of the Government. The opposition to the Bill on last Monday will prove but a foretaste of what may be expected hereafter in the House of Commons. Mr. SIMON and Sir WILLIAM JENNER were especially happy in what they said, but the psychological argument of Dr. WILKS was, perhaps, one of the most original and important of those brought forward. It involves too much philosophy and too many subtleties to be disposed of in the course of a speech, especially a single short speech; but the chief point was that all our knowledge of the seat of pain—the locus of reference of pain, the time of sensation after an act of violence, &c.—was derived from the results of animal experimentation. But for the experiments of BERNARD and others it would, Dr. WILKS said, have been impossible for teachers in medical schools to adopt such methods of teaching as they had done; nor could the works of HERBERT SPENCER, BAIN, CARPENTER, DARWIN, and LEWES, be used as they were now as text-books in such places.

We trust that we have expressed our views sufficiently clearly on previous occasions to have proved that we were not opposed to the imposition of any limitations in regard to vivisection that might be found requisite after due and impartial inquiry. That practices followed every day in the pursuit of pleasure or the gratification of the appetite are the cause of an enormous amount of animal suffering is no justification for other practices we fully allow; but we contend that animal experimentation is perfectly justifiable, under certain circumstances, when undertaken with a due sense of responsibility by competent persons. The Bill, as it stands at present, undoubtedly requires considerable modifications in various directions to become a reasonable, just, or even practicable measure. Any extension of the law under which anyone who inflicts pain on animals without justification shall be called to account is perfectly reasonable and right; but the departure of the Bill from the report of the Royal Commission in seeking to impose upon physiologists a limitation of purpose, in opposition to the distinct views set forth by the Royal Commissioners, is strangely inconsistent; and the exposure of licensed teachers to vexatious prosecutions, to numerous restrictions in the shape of special certificates, in addition to licences, seems to us unnecessary and derogatory to those concerned, and calculated to prove very injurious to the progress of medical science.

WHAT have we to say against the restraint system as employed in the asylums across the Atlantic? Dr. RAY, whose letter appeared in THE LANCET of May 27th, is right in supposing the object we have in view is "not to promote a little national jubilation over the success of a theory, but the highest welfare of the particular individual patient." The interests of the insane and the credit of medicine, as a science, in the United States are the objects we are chiefly concerned to promote, certainly not the vanity of English theorists. As a matter of fact, Dr. RAY and his friends across the water know very well that we have no claim to the credit of emancipating our lunatics. We do reflect with thankfulness that the most expert and eloquent expositor of the rational system may be counted among us. Dr. JOHN CONOLLY is ours, but not the merit of having instituted the system he so ably interpreted from the teaching of PINEL and ESQUIROL forty years after their humane experiments were successfully made.

Our appeal is strictly professional in its character, and it is made to the whole profession of medicine in the United States. We ask them to wipe out the national reproach, so strange and incongruous with the genius of enterprise in America, of lagging behind the rest of the world in regard to a system they cannot, and, as a matter of fact, *do not*, in their hearts approve. The "silly women and sillier men" to whom Dr. RAY alludes so contemptuously represent a rising spirit in the States, which will rapidly and completely rob the alienists who share our correspondent's opinions of the cherished liberty they boast. Dr. RAY says: "I regard it as one of the felicities of our situation that we are exempt from Lunacy Commissioners, and that thereby our hospital men are left free to work out the problem of restraint, as well as others connected with hospital management, without asking permission of outside authorities." Dr. RAY possibly noticed in the *New York World* last December a paragraph describing a meeting to form a "ladies' society for the better protection of the insane." The chair was said to have been taken by Mrs. NORTON, who "detailed her experiences at the Bloomingdale Lunatic Asylum, where she spent some time eleven months ago." Possibly it is the efforts of "silly women" like these ladies of Brooklyn that Dr. RAY regards with so much obvious disquietude. Among the "sillier men," Dr. WILBUR, superintendent of the New York Asylum for Idiots, we presume, figures prominently. That gentleman is of opinion "that in this country (America) the welfare and comfort of the insane and the various correlated interests of society would meet on common ground not until every State in the Union had some legally-constituted board, alike in powers and functions to those of the British Boards of Lunacy." Dr. RAY's not very courteous insinuation that those of his countrymen who are "promoters of the notions . . . . would rejoice to serve their country in this capacity, provided a good salary were attached to it," will probably prevent his attaching any value to the opinion of the Commissioners temporarily appointed in certain States. We refrain, therefore, from reproducing their several declarations to the effect that a permanent commission is necessary, and, in the words of the commissioner appointed last year by the Commonwealth of Massachusetts, that "*no intelligent and thoughtful people* will always or long remain satisfied without this protection, and the quicker the States wisely make such provision the better." The Hon. S. L. SEWALL, once a trustee of the Worcester Lunatic Hospital for ten years, has addressed a letter to the Commissioners of Lunacy last mentioned, in which, speaking of the incarceration of persons who are not insane, in asylums, he says: "The only remedy for this state of things is to allow no person to be confined as a lunatic without the judgment of one or more independent and competent persons, appointed like judges, for the purpose." The Commissioners endorse this opinion, and recommend the adoption of a permanent board, such as that which has done and is doing inestimable service in England.

The first result of creating a standing board of Commissioners in Lunacy for the protection of the insane in America would undoubtedly be to disturb the state of "felicity," which, according to Dr. RAY, asylum superintendents so highly appreciate. This may be gathered from the singularly suggestive remark of Mr. WENDELL PHILLIPS, one of the Commissioners recently appointed in Massachusetts, "I doubt the necessity and propriety of restraining any lunatic who is not dangerous to himself or others." This opens up the preliminary objection we have to urge against the restraint system as employed in asylums across the Atlantic. It is not an occasional recourse to mechanical appliances for the coercion of violent lunatics; even that we hold to be unnecessary, and therefore wrong, besides being harmful. The American system, however, is in a large measure an habitual use of restraints to save trouble, or, as some of the more candid superintendents put it, to "avoid risks." The whole defence of the practice is based upon the presumption that lunatics and those around them are to be *protected* by strait-waistcoats, and the rest of the paraphernalia suggested by terror and tyranny. We do not say that this is the practice in all asylums. Unfortunately, the largest of the institutions in the United States are the worst. There are many hospitals for the insane in America conducted as well as, or perhaps even better than, the majority of such asylums in England; but it is with the leading, the prevailing, practice we have to do, and our contention must be that, with a view to avoid risk, and without taking the trouble to ascertain how far the means employed are either requisite or effectual, American alienists adhere to the exploded system of tying up their patients to keep them out of mischief; and thereby inflict grievous wrong on "particular individual patients," aggravating their sufferings, confirming their maladies, and sensibly lessening the prospect of cure, while signally failing in the object they have in view by perseveringly employing an abortive remedy. The Commissioners for New York, writing at the close of 1875, allude to "the numerous complaints of cruelty to patients on the part of attendants which have come before the public during the past summer." This is precisely what must be expected where a system of restraint prevails. Attendants accustomed to treat mad people as wild beasts, and provided with all the appliances of restraint, are not likely to exhibit greater humanity than was displayed by those who daily flourished the whip over refractory negroes. Dr. CONOLLY, in his report as Superintendent of Hanwell Asylum in 1841, observes: "It was curiously indicative of the per-

version of feeling engendered by long familiarity with restraints that there was no part of the asylum in which they were more freely employed than in the female infirmary." In his report for 1844 he describes the effect of the restraint system as being to render medical officers and attendants "cruel," to make them think of "punishment" in place of "cure."

The habitual use of restraints in America is a potent cause of the evils which have gained the asylum system of that enlightened and progressive country its recent evil repute. If, instead of adopting a policy of secrecy even to the extent of interdicting the practice of patients writing letters to their friends, the superintendents will abandon a practice which, in fact, is only a remnant of the dark days, that ought long ago to have been left behind, that reproach will be wiped out, and none will hail the change more warmly than ourselves.

Our next objection to the restraint system, as employed in the United States, is that it is useless for the purpose to which it is applied. We might ask the alienists of America to answer this question frankly for themselves. Is the condition of the patients in their asylums satisfactory as regards their immunity from accidents? Does the use of restraint prevent misadventure? Have there been no homicides, no cases of patients dying unattended in their beds, no broken bones, no bruises? If the system pursued were successful in the United States, the experience of alienists there would be directly opposed to that of our own superintendents. Dr. CONOLLY, in the reports just quoted, assigns as his primary reason for abolishing the use of restraints at Hanwell, "the apparent inefficiency of mechanical restraint as a means of preventing accidents and mischief." He distinctly alleges, and the observations of superintendents on this side the water strengthen the conviction, that coercion increases the excitement, and aggravates the very propensity to violence it is meant to check. It does more, and this is our third consideration,—its use is fatal to the benefit of the insane. Dr. CONOLLY says, "One cherished error of the advocates of restraint is, that *it can at least do no harm to the incurable*. The fact is, that *no patients are more permanently injured by it, in temper, feelings, and habits*. So far from preventing violence, it provokes resistance. The patient is annoyed, irritated, and the propensity to do mischief is strengthened. Patients permitted to walk while in restraint were still capable of inflicting injury upon others; they were not protected from causes of irritation, or from the attacks of other patients." Restraint does not prevent suicide, homicide, bodily injury, or death; it of necessity increases the irritation of the patient suffering it, and it inevitably engenders dirty habits. It is not a curative expedient; it is simply and solely a device to save trouble, or, if anyone prefers the phrase, "to avoid risks," which, as a matter of fact, are not even reduced, much less avoided, by the irrational practice adopted.

These are *some* of our reasons for opposing the system of restraint, and we earnestly appeal to the whole medical profession in America to cast aside a system shown by experience to be inhumane, useless, and even mischievous, a protection to nobody, and a source of danger and injury to the insane, for whose benefit it is professedly employed.

---

IN arguing in favour of the second reading of the Medical Act Amendment (Foreign Universities) Bill, on Wednesday, the 5th inst., Mr. COWPER-TEMPLE was singularly unfortunate alike in his statements and in his interpretation of facts. He very properly described the Bill as providing an exceptional remedy for an exceptional grievance, and, as he evidently thought, a measure to be advocated only by an exceptional mode of reasoning. Observing that women had been systematically precluded from presenting themselves at medical examining boards, he alleged that a spirit of trades'-unionism prevailed among the medical practitioners of this country, who feared the rivalry and competition in practice of medical women. The female medical students had, he stated, knocked at the doors of such of the nineteen medical corporations and universities as they thought they had a chance of entering, but all these doors were closed, and some were even slammed, in their faces. At the Royal College of Surgeons of England the three examiners in midwifery had actually resigned their "situations" rather than examine lady candidates. In consideration of the difficulties of obtaining from the examining boards of this country a legal qualification to engage in medical and surgical practice, he argued that if women could show by diplomas of certain foreign universities that they were qualified to practise medicine, they should be allowed to do so. In other words, he asked that foreign degrees should be accounted registrable in this country, provided always that the holders of these degrees were females.

The inconsistency and the bad logic of these arguments were very completely exposed by Mr. WHEELHOUSE and Dr. LYON PLAYFAIR, both of whom pointed out the evil and the danger of allowing female medical graduates of foreign universities to be placed on the Medical Register in this country, while men holding such degrees are excluded. To adopt such a measure would, as Dr. PLAYFAIR affirmed, destroy the whole system of medical registration, and would, moreover, give to many foreign diplomas and degrees powers and rights which they do not possess in the countries of their origin. Graduates in medicine of the Universities of Berlin and Leipsic, for example, are required to pass a State examination to prove their practical knowledge in medicine and surgery before they are allowed to practise either amongst the civil population, or in the army or navy. But Mr. COWPER-TEMPLE's Bill contains no such safeguard. The result of its becoming law would be that a number of ignorant and incompetent medical women would be let loose on society, and a still larger number of unqualified assistants would be found practising in their name.

The question in this instance is not therefore as to the propriety or impropriety of women engaging in medical and surgical practice, but whether women should be placed on the Medical Register on the strength of foreign qualifications which have hitherto been excluded. As is well known, repeated attempts have been made by many worthy practitioners in this country, who are also medical graduates of foreign universities, to induce the Medical Council of England to recognise foreign medical degrees. All these attempts have, however, up to the present time proved futile. The Medical Council has persistently maintained

the sound and important principle that they are willing to recognise only the degrees, diplomas, or licences of those examining bodies over which they have direct control and jurisdiction. By excluding all foreign degrees from the Register hardships are undoubtedly inflicted on many estimable individuals, but few will deny that the effect of the plan is in the main good alike for the community at large and for the medical profession generally. If, then, it be inexpedient to place on the Register medical men who, while holding foreign degrees, possess also qualifications from one or more of the English examining boards, how much greater would be the evil of registering women who hold only a foreign diploma.

The whole subject of medical women is, however, a simple question in political economy—namely, supply and demand. Mr. COWPER-TEMPLE asserts that there is a great demand for medical women among the native women in India and among the "Asiatic subjects of the Czar of Russia." Would it not be well, then, if those females who desire to supply this demand should seek their professional education and their qualifications to practise in those countries where their services are sought for, and where alone they can gain an adequate knowledge of the endemic diseases? Or let them establish a hospital for themselves. As it is, they seem to waste their strength in vain attempts to take possession of schools and hospitals hitherto monopolised by male students.

THE result of the elections at the Royal College of Surgeons of England will give general satisfaction. The tried ability and the wide knowledge of the College affairs, and of medical matters generally, possessed by the three retiring members, Mr. SIMON, Mr. HUMPHRY, and Mr. HOLDEN, rendered their re-election into the Council of great importance at the present crisis; whilst the reputation of Mr. WHEELHOUSE, and the sympathy and support which he received from a large number of provincial and metropolitan Fellows, both before and at the election, warrant the belief that he will prove to be an important power in the deliberations of the Council.

It is gratifying to find that the election has, this year, been conducted in an unusually friendly spirit, and that the pernicious system of canvassing has been but little resorted to, if at all. It is true that in some quarters a strong feeling existed in favour of adhering to the principle of giving preference to the senior Fellows; but although this principle has much to recommend it, there are conditions under which it may be safely superseded, and there was on this occasion a general wish on the part of the Fellows to elect the best man. Mr. WHEELHOUSE, the senior surgeon of the Leeds Infirmary, is a Fellow of 1864, but his membership dates from 1849. He is, as a Fellow, fifteen years junior to Mr. HUSSEY, of Oxford, and thirteen years younger than Mr. WILLIAM ADAMS, of London. It had, however, evidently been resolved that a provincial Fellow should be elected, and, in accordance with a principle we had already suggested, that "if a provincial Fellow be chosen he should be in some degree the actual representative of one of the large provincial medical schools." Mr. WHEELHOUSE has long been a highly esteemed teacher at the thriving school at Leeds, and succeeds to the vacancy caused by the death of Mr. SOUTHAM, Professor of Surgery in the not less prosperous school at Manchester.

In congratulating Mr. WHEELHOUSE on his success, we are by no means unmindful of the position in which his two unsuccessful competitors find themselves. Mr. HUSSEY is deserving of great consideration for the undaunted manner in which year after year he persists in his candidature, and much may be urged in favour of electing a member of the Council from Oxford. But the claims of Oxford as a medical school are but small compared with those of some of the larger schools. Mr. ADAMS, who came forward under very disadvantageous circumstances, may well be satisfied with the substantial support which he received alike from Fellows in London and in the country—support which augurs well for his prospects in the future.

# Annotations.

"Ne quid nimis."

## INDIA AND ITS MEDICAL SERVICES.

A good many years have elapsed since we put forward some suggestions which we thought might form a basis for discussing the question of the amalgamation of the British and Indian Medical Services. The subject was then exciting some attention, as it has done both before and since that time, but "sufficient for the day" is a safe line of policy. There was no pressing necessity for such amalgamation; it was a very difficult problem; medical officers were averse to changes, knowing that nearly all changes turned out to be prejudicial to them; and neither the Indian nor the Imperial Government had the courage to grasp the subject. The result was that, like a good many other questions, it had its day and ceased to be. But it was bound to come up again in some shape or other, and it comes up in much the same shape it had when we parted with it. *The Times of India*, in recently discussing the question of the progress of medical and sanitary science in that country, suggested that something might be effected in the way of reconstructing the Indian Medical Department calculated to adapt it to the increasing wants of the country. The department is at present more military than civil, whereas it should, according to our contemporary, be made the reverse. It strikes people as inconsistent to have two sets of army surgeons belonging to the British and Indian Medical Services, one of which is employed in civil duties; and it would apparently tend to simplify matters if there were a Civil Medical Service for all India, as there is already a Civil Service, and *one* Military Medical Service for British and Indian troops together. The reform of the Medical Department in India will be a task of no little difficulty, and of much thanklessness at first; but it is a task which, in the opinion of our contemporary, the growing requirements of the Empire demand at the hands of its rulers. We do not know that there is any special reason for taking up this question at the present time, but it is gratifying to find it recognised, as the practical basis of any future reconstruction of the medical departments, that there shall be a civil and military medical service. Considering the enormous amount and variety of work to be done in India, its great political importance, and the number of specially trained medical men required to do it, we should think there would be ample scope for the labours of a large Civil Medical Department.

## SANITARY ETHICS AT LIVERPOOL.

THOSE of the inhabitants of Liverpool who are interested in the sanitary welfare of their town (as well as many others who have no sanitary leanings, but strong political proclivities) are just now very much exercised about the conduct of the corporation in relation to the choice of a so-called deputy medical officer of health. We alluded briefly to this subject last week, since which date the matter has assumed an important aspect, because it is rumoured that a member of the corporation is likely to be appointed deputy health officer. It may appear superfluous to comment on the unwisdom of such a proceeding. The authorities, having to deal with a very large, very dirty, and very intemperate population, were in the van of sanitary reform some years ago, appointed a medical officer of health before any other town in England was even cognisant of its responsibilities on this head, and have always treated their professional officer liberally and courteously. They were therefore enabled to secure and retain the services of a man highly skilled in professional and well trained to administrative work, a man whose time was monopolised by the corporation, and who brought to bear upon his duties an amount of energy and industry that has seldom been equalled, and has never been excelled, either in the metropolis or the provinces. For, in spite of the sanitary difficulties with which Liverpool has had to contend, the Health Committee and its staff have for many years been a praiseworthy example, so that they might have in effect said to other towns, "Go and do thou likewise." We have no hesitation in saying that the holder of this appointment will have responsibilities heavier than those of any other sanitary officer in England, for he will have to deal not only with a crowded area much larger than any health district in London, but have to take charge also of a port second only to the Thames in its complexity and cosmopolitan relations. Is it not fit and proper, looking at the matter from a purely business point of view, that the ordinary steps should be taken to find out the best man to fill the post? For, happily, there is no trouble about finance. Liverpool in these matters has never been niggardly, and can, if the authorities choose, secure the services of the very best man in the country, and we earnestly counsel those in authority to have an election and to make the arrangements connected therewith absolutely open.

## DOUBLE MONSTERS.

THE conclusions arrived at by L. Dittmer, in a long paper on this subject in *Reichert's Archiv*, are as follows:—1. The comprehension of the origin of double abortions is only possible on the basis of Reichert's doctrine of the bilateral and symmetrical structure of the vertebrate organism. These possess no axial structure, but a median plane, primary and secondary commissures. The first indication of the bilateral symmetry is the formation of the primitive groove, which divides the laminar rudiments of the embryo into a right and left half. 2. All double monsters proceed from one egg, with a simple, and originally quite normal, formation-yelk. 3. All double monsters originate from the simple yelk in consequence of an excess of the bilateral symmetrical cleavage of the blastoderm, resulting from a bilateral symmetrical process of fission in the germ. 4. This bilateral and symmetrical process of fission of the germ may proceed from the cephalic or from the caudal extremity, or from both together, and the division of the laminar rudiments takes place under different circumstances, and to a variable depth. 5. In the halves originating from bilateral symmetrical division of the germ, and subsequently undergoing further development, this development proceeds on the basis of a new bilateral symmetrical fission of the germ. 6. This secondary bilateral symmetrical process of germ-fission may, like the primary, become excessive, and lead to bi-symmetrical germ-fission. Three-headed and three-tailed monsters arise in this way. 7. The accessory—that is to say, adjoining—halves of double embryos frequently occur in a condition of secondary atrophy, in consequence of which an apparent simplicity is produced (rudimentary Janus forms). 8. Double monsters that have a dorsal or ventral tube common to both originate in consequence of the formation of abnormal secondary commissures, the dorsal or visceral laminæ or arches of the one embryo uniting with one of those of the opposite. In the commissural lines the normal commissural structures are always present. 9. In no instance do double embryos arise from transverse division of the germ in the line of demarcation between the head and body, nor is this supported on any valid observations. 10. A transverse division of the furrowed embryo does not, in whatever direction it may take place, produce a double embryo, but, just like the fecundation of an ovum with two yelks, two germinal spots, or two germinal vesicles, has the development of twins as its result. 11. Double embryos lying in a straight line also originate from bilateral symmetrical germ-fission, and from development of the accessory halves, elevation of the dorsal laminæ, common to both, at the cephalic or caudal extremity, and extension of the area vasculosa in a straight line. 12. Every embryo arranges itself before or after the formation of the primitive groove, with its long axis at right angles to the long axis of the ovum, in consequence of certain but hitherto unknown conditions of space and specific gravity. 13. The same arrangement occurs also from the same causes in double formations, which form a straight line with their long axis.

## ZYMOTIC FATALITY IN BIRKENHEAD.

THE last annual report of Dr. Vacher, the medical officer of health for Birkenhead, shows that, during the year 1875, no less than 28·9 per cent. of the deaths in that town resulted from zymotic diseases, of which 20·9 per cent. were referred to the seven principal diseases of that class—namely, small-pox, measles, scarlet fever, diphtheria, whooping-cough, fever, and diarrhœa. The average proportion of deaths referred to these seven diseases in England and Wales during last year was 14·5 per cent., and in London 16·5 per cent. The high proportion of zymotic deaths in Birkenhead last year was principally due to the epidemic prevalence of scarlet fever, although each of the six other diseases, except small-pox, contributed a considerable quota of deaths. A very useful table in Dr. Vacher's valuable report enables this zymotic fatality to be localised in a manner which should not be lost sight of by the Birkenhead commissioners who constitute the local sanitary authority. The table in question shows the total deaths, and the deaths from zymotic diseases, in each of the 267 streets &c. of the town. From a careful analysis of this table it appears that in 70 of the most fatal streets, of 247 deaths registered from all causes, no less than 153, or 62 per cent., were the result of zymotic diseases. In 103 streets the proportion of deaths from zymotic diseases was equal to 49·5 per cent., whereas in the remaining 164 streets &c. the proportion did not average more than 16·1 per cent. The sanitary condition of these 103 streets, judging from the proportion of zymotic deaths among their residents, must be far from satisfactory. The Birkenhead commissioners have now provided themselves with a

hospital for the isolation and treatment of cases of infectious diseases, the situation of which is described by Dr. Vacher as "leaving nothing to be desired." In appearance "it resembles from the outside a pleasant country home rather than a house provided by the township for the reception of the sick." It is thoroughly well appointed, and is provided with a mortuary, disinfecting room, and dispensary. There is generally a considerable amount of prejudice to be overcome before such hospitals are readily used by the classes for which they are principally intended. The idea of the removal of a relative to a "fever hospital" is repugnant to most people, and we would suggest that this class of hospitals would be more acceptable if called by other names than those of fatal diseases like small-pox and fever. Sanitary hospital or Sanatorium would answer the purpose. Dr. Vacher's report does not state the amount of accommodation which this new hospital contains, but it will doubtless afford valuable assistance in reducing the future proportion of zymotic deaths in Birkenhead.

## OSTEOTOMY IN FRANCE.

A LONG discussion lately took place at the Société de Chirurgie of Paris, on the subject of osteotomy in the treatment of rickety deformities, during the course of which the opinions of many French surgeons were elicited. M. Jules Boeckel, of Strasburg, described thirty-four cases of osteotomy, performed in some cases for rickets, in others for extreme deformities from other causes, and in all the operation was successful. The most promising age he concluded to be from fifteen months to seven years, after, of course, the deformities have become fixed, and treatment by other means has become impracticable. The method recommended by M. Boeckel is to place a chisel in an opening made through the skin and periosteum, and divide the bone by a few blows with a mallet. He prefers to complete the section of the bone at the time—not, as some surgeons have recommended, to allow the wound to heal, and then to complete the division by external violence. After the section the limb is, of course, kept immovable by a plaster bandage. In some cases the removal of a wedge of bone was necessary. M. Alphonse Guérin pointed out that osteotomy for rickets was practised in 1838 by Jobert (de Lamballe), although his operation was not subperiosteal. Most of the subsequent speakers agreed with M. Blot in deprecating the operation at the early age at which it had often been performed. This was the opinion of M. Léon le Fort, who would limit osteotomy to children of ten to twelve years, believing that other means will, at earlier ages, effectually conquer even the most extreme rickety deformities. He expressed the opinion that English and German surgeons have not, in early cases, given sufficiently long trial to other methods of treatment. He showed casts of the legs of two children, one of five and the other of eight years, who had been unable to walk in consequence of extreme curvature, and in whom the deformity was completely removed in fifteen months and two years by simple mechanical appliances. He believed that the chisel rendered the operation less grave, but believed that it was only trivial at the early ages, at which it was really not needed; while at the later ages, at which alone its performance was justified, it was really a much more serious matter than had been asserted. In the subsequent discussion the treatment of rickets and that of the deformities were not carefully distinguished. M. Verneuil and M. Marjolin both opposed osteotomy, and the latter quoted some statistics of M. Perrochaud, surgeon to a seaside hospital at Berck, which were held to prove that rickets could be cured by simple residence at the seaside. Curiously enough, the diet on which the children in the hospital were put seems not to have been considered of the least importance. As the cases treated were of the age of two to eight years, it is obvious that they included both the condition of rickets and its consequences; and, as M. Tillaud subsequently pointed out, the deformities caused by rickets often continue to adult life and are amenable only to operation. He urged French surgeons not to repeat the error they committed in 1866, when they rejected osteotomy altogether.

But the French surgeons, in speaking of osteotomy as an English and German operation, lost sight of the careful study of the treatment of rickety deformities which M. Jules Guérin brought before the profession in 1843, and of which he has recently reminded the Académie de Médecine. His treatment was founded on a careful study of the pathological anatomy of the diseased bones. Osteoclasm, the fracture of the bone, should not, he maintained, be compared with osteotomy, since it is applicable only to a different period, in which the bone is, in the main, composed of soft material; but a shell of bone resists straightening, a shell which may easily be broken. During the "second period" of rickets osteoclasm should, he believed, always be preferred. It is certain, however, that in this period the deformity is still to a great extent amenable to other measures. Osteotomy M. Guérin employed at a later stage, and combined it with division of tendons. He usually had recourse to partial subcutaneous section, dividing the concave side of the bone, while the corresponding portion of the concavity is preserved intact. This is a very important difference between him and his successors, since in his operation the limb does not undergo the shortening which results from the removal of a wedge-shaped piece from the convex side. He strongly insists on the advantage gained by the "subcutaneous" method.

## THE IMBECILE PAUPER CHILDREN OF THE METROPOLIS.

THE first annual report of the Committee of Management of the Clapton Asylum which has been recently published is of more interest and importance than such reports generally are. It contains an account of the first attempt at giving some amount of training and education to the pauper imbecile children of the metropolis apart from the adult imbeciles, with whom until lately they were always mixed. Partial separation began in 1873, when 100 children were transferred from Leaveaden to Hampstead. In 1874 a similar number were sent there from Caterham, and on the 24th of October, 1874, a special committee of the Metropolitan Asylum District Board was appointed to still further develop the idea. This committee hired the London Orphan Asylum at Clapton for three years, and opened it on April 28th, 1875, as a residence for idiot children only, and they hope to complete a permanent asylum at Darenth, near Dartford, by the time that their term at Clapton expires. The temporary building is by no means well fitted for its purpose; the rooms are too few in number, and the space is very limited, whilst at first a deficiency of water-closets existed; and even now there are no separate infirmary wards for the children that are ill, which must greatly hinder their proper treatment and prejudice their recovery. In spite of these disadvantages, the health of the children has been fairly good, and the death-rate of 9·1 per cent. is low, considering that no pauper imbecile child from four to sixteen years of age is refused admission, and that in consequence the number of helpless and epileptics is exceptionally large. During the year 21 patients were removed to Homerton Fever Hospital, of whom thirteen suffered from scarlet

fever (which seems to have been introduced by the visitors to the children) and eight from enteric fever, due to contamination of the drinking water with sewage gas, in consequence of the overflow-pipe of the cistern communicating with the main drain. The industrial training and the education of the children are especially attended to, and systematic efforts for their amusement are frequent and well devised. It is, however, much to be regretted that all paupers are considered by the Local Government Board to become adults at sixteen years of age, for by a stringent application of this rule the education and training of many must be prematurely arrested at a period when a year or two more would render them able to earn their livelihood outside, and so gain the full advantage of all the trouble that had been expended on them. The Commissioners in Lunacy made an inspection of the asylum in October last, and in their report gave great credit to Dr. Beach and the rest of the staff for the healthy and clean condition of the children. We doubt if a single medical superintendent, however diligent he may be, is sufficient for all the work, administrative and medical, that must devolve upon him, and no provision seems to be made for his occasional and necessary absence. We point out this deficiency the more especially as, in the estimate of the assumed cost of the permanent asylum at Darenth, 500 children are computed for, and we find that the proposed staff is only to contain one medical officer. If a table were appended to the next annual report showing the average daily number of children requiring medical supervision and attendance, it would be of great value, and we have no doubt that the advisability of having an assistant to the present medical superintendent would be at once apparent. Accompanying the report is a plan of the new asylum, which seems to be exceedingly well arranged, and is to be provided with isolated buildings for infectious cases, probationary cases, and a deadhouse.

## DECLINE OF INFANT MORTALITY IN LEICESTER.

THE notoriety which the high rate of infant mortality in Leicester recently acquired led to a special inquiry into its causes, which was conducted and reported upon by Messrs. W. E. Buck and G. C. Franklin. This report enlarged upon many sanitary defects of the town, and especially condemned the imperfect sewage outfalls and the evils arising from the complete saturation of the subsoil, attributed to the river being dammed up against the town by mills. These sanitary defects cannot fail to be detrimental to the health of the town, but the report did not attempt to explain why infant mortality was so unfavourably affected by these defects, whereas the death-rate at other ages in Leicester has, in recent years, compared favourably with that in other large English towns. The Registrar-General, in his last Quarterly Return, remarked that the inquiry above alluded to appeared to have already exercised an effect upon infant mortality in Leicester, although the radical sanitary defects pointed out can scarcely yet have been remedied. During the first six months of 1875, infant mortality in Leicester, measured by the proportion of deaths under one year to births, was equal to 199 per 1000, against 158, the average proportion in twenty large English towns. In the first six months of this year the infant death-rate was only 141 in Leicester, and was lower than the average rate in the twenty towns—147 per 1000. In the first six months of 1875, the Leicester rate was 41 per 1000 higher than the average rate in the large towns, whereas, in the six months just ended, it has fallen 6 per 1000 below the same average. It does not appear possible to attribute this important decline in the Leicester rate of infant mortality to what is generally understood by improved sanitary condition. It is far more probably the result of the inquiry itself, which initiated a house visitation in all cases of recent deaths of infants. Much of the excessive infant mortality among the working classes is directly due to the ignorance and neglect of parents, and the apparent result of the recent Leicester inquiry very forcibly suggests that much good might result from more frequent investigations into the causes of infant mortality. More systematic instruction of young women in the treatment of infants is also seriously needed.

## IMPURE ICE.

WHILE much is being done to secure the purity of our food and drink, there is little doubt that many possible sources of danger yet remain unsuspected. We do not think many people pay sufficient attention to the quality of the ice they consume this weather. An instructive lesson comes to us from the other side of the Atlantic, in the shape of a report detailing a serious outbreak of an intestinal disorder caused by the contamination of drinking-water by means of impure ice. The disease occurred among the frequenters of one of the large hotels which are so plentiful in the States, and was characterised by giddiness, nausea, vomiting, diarrhœa, and severe abdominal pain, accompanied by fever, loss of appetite, continued indigestion, and mental depression. An analysis of the water derived from the ice in use was made, and it was found to be horribly foul; while an examination of the pond from which it had been gathered showed it to be chiefly "a homogeneous mass of marsh mud and decomposing sawdust." With the discontinuance of this particular ice the epidemic ceased. The following warning is conveyed at the end of the report:—"The notion that ice purifies itself by the process of freezing is not based upon trustworthy observation. On the contrary, it is utterly wrong in principle to take ice for consumption from any pond the water of which is so fouled as to be unfit for drinking purposes." We have no hesitation, however, in saying that tons of ice are consumed daily in London which have been obtained from ponds the water of which no one would think of drinking.

## PURPURA HÆMORRHAGICA.

AT a recent meeting of the Biological Society of Paris M. Hayem related the following interesting case:—The patient, a cook, thirty-two years of age, after a period of malaise lasting fifteen days, was attacked with numerous cutaneous hæmorrhages, with epistaxis, slight in amount but frequently repeated, a bloody discharge from the right ear and from the gums. As the patient became daily weaker, and his anæmia more pronounced, M. Hayem had recourse to transfusion. This produced a temporary amendment, but the graver symptoms recurred, delirium supervened, and the patient succumbed. The temperature, which, at the commencement of the illness, ran a very irregular course, rose after the transfusion, and again during the last days of life. Examination of the blood made during life showed a slight excess in the number of red corpuscles, and a large number of white elements, which differed, however, from leucocytes in being of the size of a red corpuscle and in displaying clearly a pale, finely-granular nucleus, containing a well-defined nucleolus. Others, larger than normal white corpuscles, contained numerous nuclei, embedded in a protoplasmic investment. At the autopsy the spleen was found to be of very large size; the liver discoloured and yellowish in places; the kidneys pale and yellowish; there were submeningeal effusions of blood, and black patches on the surface of the convolutions. Microscopical examination of the cutaneous

petechiæ showed proliferation of the cells of the lining membrane of some of the arteries, the artery supplying the centre of the hæmorrhagic spot being completely blocked by clot, in which the desquamated cells were imbedded. Similar changes were found in the arterioles of the meninges and of the brain. M. Hayem remarked upon the similarity between these alterations and those which he had found, in conjunction with M. Vulpian, in the anæmic patches and miliary abscesses of septicæmia. He thought then that Werlhoff's disease (purpura hæmorrhagica) was allied to septicæmic infectious diseases, with grave alteration of the blood.

## INFANTILE SUMMER DIARRHŒA IN LONDON AND OTHER LARGE TOWNS.

THE low temperature which prevailed during the greater part of June retarded the usual summer fatality from infantile diarrhœa in our large urban population. Summer weather, however, set in with July, and the Registrar-General's return for the week ending the 8th showed a marked increase in the fatal cases of diarrhœa. The deaths referred to this disease among the seven millions of persons living in twenty of our largest English towns, including London, which had been 51, 60, and 88 in the last three weeks of June, rose to 188 in the first week in July. This fatality from diarrhœa was equal to an annual rate of 1·7 per 1000 persons living in London, whereas it averaged only 1·1 per 1000 in the 19 provincial towns. The proportional fatality of the disease varied very widely in different parts of London; in East London the death-rate from the disease was equal to 3·6 per 1000, and was considerably more than twice as high as in the west, north, or south group of districts. This excessive fatality of diarrhœa in East London calls for vigilance and investigation on the part of the sanitary authorities. The 116 deaths referred to diarrhœa in London in the week ending 8th inst. were, however, 12 below the corrected average number in the corresponding week of the last two years, and included 73 of infants under one year of age, 20 of children aged between one and five years, and 3 of persons aged upwards of sixty years. The deaths of four infants were also referred to choleraic diarrhœa.

## MIDWIVES' SURGERY.

IT seems not altogether uncommon for midwives to operate for the relief of what they consider "tongue-tied" children, and considering how frequent, in their estimation, such cases are, it is highly important that they should be made to understand their unfitness to perform the necessary operation. It is well known to medical men that midwives think children to be tongue-tied much oftener than is really the case. An inquest on the body of a child at Stenton, Nottinghamshire, shows that the child died of hæmorrhage after "the cord of its tongue" had been cut with scissors by the midwife on a Thursday. The midwife was sent for, some hours after the operation, and found bleeding going on. The same ignorance of duty which led her to attempt a delicate operation again prevailed. Instead of sending for a medical man, she contented herself with giving the child arrowroot and brandy, and thought it "better to leave it alone" over night. The next morning she went for a doctor, who found that the artery of the tongue had been cut and oozing of blood still going on. The child died on Sunday. The jury, through their foreman, said, "We are of opinion that it is an accident, one that might occur if any skilful man had operated in such a manner, but we forbid Mrs. Stone operating in such a manner again." This verdict would be very amusing if the case were not very serious. The coroner congratulated the midwife on her "luck" in being liberated and not locked up. Of course the jury have no power to forbid the midwife "operating in such a manner again," and, seeing that it involves no legal or penal consequences, she will probably do so, in which case we shall blame the coroner and jury for so lightly dealing with a case of gross excess of duty.

## THE BATHING AND DROWNING SEASON.

THE advent of warm weather has been accompanied by the usual increase in the deaths from drowning in the metropolis. The deaths from this cause in London, which had averaged seven during the five weeks ending 24th June, rose successively to ten and fifteen in the two weeks ending 1st and 8th inst. Of the fifteen in the last-mentioned week, which exceeded the corrected average number for the corresponding week in the last ten years by five, ten were of young persons aged between five and twenty years, and the other five of adults aged between twenty and sixty years. There are few causes of death upon which season exercises so direct an influence as upon drowning. During last year 258 deaths from drowning were registered in London between 1st April and 30th September, whereas in the other six months they did not exceed 117. There has been a marked increase in the deaths from drowning in London in recent years; in 1875 they showed an increase of 5 per cent. upon the average number in the ten preceding years, after correction for increase of population. This increase in the deaths from drowning probably indicates a far larger increase in the number of bathers, and ought perhaps therefore, in some sense, to be accepted as a healthy sign. It appears, however, to be worth inquiring whether it is necessary for the increase of deaths from drowning to keep pace with the augmentation in the number of bathers.

## THE KENT BENEVOLENT MEDICAL SOCIETY.

THIS old-established and well-conducted benevolent Society held its eighty-ninth anniversary at Canterbury on Wednesday last, the President, Dr. Lockie, in the chair, supported by Mr. Rigden, the treasurer; Dr. Carr, of Blackheath, one of the trustees; Dr. A. F. Price, of Deptford; Mr. Edward Long, of Barham; and other members. Its source of income is derived from the subscriptions of members, one guinea annually constituting membership, in addition to which it has upwards of £8000 of funded property. Nine new members were added to the Society this year; the loss sustained by death and withdrawals being six. The number of members on the roll is 163. The treasurer's sheet showed that upwards of £500 was available for carrying on the work of the Society. The grants made to eleven applicants amounted to £440, varying from £20 to £80—a sum £40 in excess of last year, and including one new grant of £50, respecting which there was a very divided opinion. The fundamental law of the Society requires that membership shall have continued for a period of ten years before a member, his widow, or child be eligible for relief; unless, as in this case, the member joined before attaining his thirty-fifth year, and continued his annual contribution for seven years, when he died, leaving a widow and three young children in very narrow circumstances. Under Section IV. Rule 5, a general meeting can, two-thirds present agreeing, grant relief at any period after such admission; which, although very exceptional, was done in this case. Looking at this and similar cases which illustrate the uncertainty of being able in the early period of professional life to make provision for the future, it appears to us the duty of every member of the profession to join a society like this; which, at the moderate cost of one guinea annually, does,

and in no sparing manner, help the widow and orphan. Entertaining these views, is it not a painful reflection that among the thousands of medical men in Kent a number less than 200 should be the limit of a society which relieves members themselves, their widows and orphans, who, through misfortune or infirmity, need help?

## LORD CARNARVON'S BILL RELATING TO CRUELTY TO ANIMALS.

ALL the members of the Medical Faculty of the University of Edinburgh, headed by the revered name of Sir Robert Christison, have signed a memorial to Her Majesty's Government respecting the Vivisection Bill, as amended in the Lords. The memorialists suggest for serious consideration whether the representations which have been made to the Government on the subject by the various medical authorities throughout the British Islands have not sufficiently indicated, on the one hand, the prevalence of a genuine and deep feeling of humanity towards the lower animals on the part of those engaged in physiological study; and, on the other hand, the great difficulty of framing any law which will not interfere with the progress of medical knowledge. But if the Government should think it desirable to persevere with the Bill, they urge the importance of further amendments in accordance with the recommendations of the General Medical Council.

All we can say at present is, that the suggestions indicated by the Medical Faculty, as to the directions which these amendments should take, are of a very important character and ably stated, and deserve the most careful consideration of Her Majesty's Government.

## CORONERS.

IN the House of Commons on Tuesday, Lord F. Hervey moved "That further legislation is desirable with regard to the qualification and appointment of coroners and the mode of holding inquests." He contended that the conditions on which coroners were appointed, and the mode in which they exercised their duties, had become so antiquated and obsolete as to call imperatively for reform. He pointed out the irregularity of their distribution throughout the country, and censured the practice of holding inquests at public-houses. Lord F. Hervey argued that no one but a barrister or solicitor could properly discharge the duties of the office, and in this contention he was, later on, supported by Mr. Cross. Several members spoke, including Dr. Lush, who urged that medical knowledge ought to be insisted upon as part of the qualification of a coroner. The motion was then put to the House and agreed to. We hope next week to deal at length with the subject.

## VACCINATION.

THE report of the Medical Officer of the Privy Council and Local Government Board, just issued, gives some important statistics with reference to vaccination. The success of the Act of 1871 relating to the subject may be measured by the fact that, according to Dr. Seaton's statistical digest, of the 816,508 children born in England and Wales in the year 1873, all, up to a margin of less than 5 per cent., had been accounted for, and that of this number 85¼ per cent. were accounted for as vaccinated, and 9¾ per cent. as having died early and unvaccinated; while the small residue, not quite ¾ per cent. on the whole number of births, included infants whose vaccination from various causes had, under medical certificate, been postponed. The public supply of vaccine lymph seems to have been maintained satisfactorily, for it appears that during the past year it was supplied in answer to more than 10,000 applications.

## DIVIDED AUTHORITY IN WORKHOUSES.

WORKHOUSES are practically hospitals. It is notorious that the majority of the inmates are physically disabled and impaired. Sound and able-bodied paupers are not now to be found in workhouses. This fact makes it very important that the authority of the medical officer, at least over the sick wards, and all their arrangements, should be supreme. In Manchester, if we may judge from the papers, there is a most unhappy conflict of authority between the master and medical officer, which might be easily obviated by giving the medical officer superior authority in the sick wards. The master, for example, is required to visit the male wards of the hospital before eleven daily to decide on questions of cleanliness and ventilation. This involves the finest questions in hygiene, and an error of judgment might involve numerous cases of ill-health or acute disease. But the present regulations give the master power over the doctor. Only an inefficient doctor would long hold office on such terms. We urge the Local Government Board to consider this question, which affects other large workhouses besides that of Manchester. The Manchester workhouse contains about 1200 inmates, of whom two-thirds are sick.

## THE BOARD OF TRADE.

THIS is the title of a short Parliamentary Paper that has just been issued. The return before us shows a total of seventy-two unregistered medical practitioners who have served or are serving afloat. It appears that of these, thirty-six have "signed articles" and taken medical charge on board emigrant or other merchant ships since an official circular was issued by the Board of Trade in September of last year, distinctly instructing marine superintendents and shipping masters, in effect, that registered medical practitioners only were to be permitted to sign articles for professional service. It is evident, therefore, either that the officers who receive their instructions from Whitehall neglect their duty, or that the staff at the various shipping offices in the kingdom do not, in this matter, comprehend their duties and responsibilities. Under any circumstances this condition of things indicates very clearly that the Board of Trade should have at head-quarters a competent professional officer, whose duty it should be to see that these, as well as other, circular orders relating to sanitary matters afloat are fully and faithfully carried out.

## MEDICAL OFFICERSHIP OF HEALTH TO THE KEIGHLEY LOCAL BOARD.

Two conditions in the advertisement of the Keighley Board for a medical officer of health seem to us very objectionable. The medical officer is expected "to act generally in conjunction with the inspector of nuisances," and, secondly, "generally to obey the directions of the board or the committee relative to sanitary matters appertaining to the department of officer of health." He would be a very doubtful officer of health who agreed with such directions as are likely to emanate from some local authorities in Keighley, and he would be a very servile one who came under obligations to do so. Better not to be a medical officer of health than to be bound hand and foot in this way.

## DR. A. H. HASSALL.

WE are happy to learn that a project is on foot to present Dr. Arthur Hill Hassall with some suitable testimonial, in recognition of his great labours and services in connexion with the establishment and foundation of the Royal National Hospital for Consumption and Diseases of the Chest, located

at Ventnor. This hospital, as is well known, is on the separate system, each of the one hundred patients which it accommodates being provided with a separate sleeping apartment. The erection of the hospital is now finished, and seven out of the eight blocks of which it consists are fully occupied with patients. The completion of the hospital, after ten years of strenuous exertion, is considered to afford a fitting occasion for presenting Dr. Hassall with some acknowledgment of his services. An influential committee has already been formed for the purpose, Mr. Frederick Colman being the honorary secretary and Lord Eversley and Sir Lawrence Peel the joint treasurers.

## ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.

AT the distribution of prizes, which took place on Wednesday last, the following were the principal recipients of prizes and honours:—Entrance Science Scholarships: Mr. H. A. H. Fenton, £60, and Mr. T. D. Savill, £40. First-year's Students: Mr. T. D. Savill, Tite scholarship and certificate of honour; A. Newsholme, college prize (£20) and certificate of honour; J. Shaw, college prize (£15) and certificate of honour. Second-year's Students: C. E. Sheppard, college prize (£15) and certificate; S. J. Taylor, Musgrove scholarship (40 guineas) and certificate; J. Shaw, college prize (£20) and certificate. Third-year's Students: Mr. C. B. Longstaff, college prize (£20) and certificate; C. E. Sheppard, £15 and certificate. We hope that the spirit of emulation and industry which enabled these young men to secure the coveted rewards of their hospital will be displayed with equal success in the race of life.

## THE HARROGATE COMMISSIONERS AND DR. DEVILLE.

THE Yorkshire Association of Medical Officers of Health held a meeting at Harrogate last week, under the presidency of Mr. S. W. North. The Association has warmly resented the recent arbitrary dismissal of Dr. Deville by the Town Commissioners, and forwarded a strongly-worded memorial to the Local Government Board, in which the Board was urged not to accord its sanction to the action of its Commissioners, but to take steps to prevent the removal of Dr. Deville from his office, an act which the memorialists denounced as "at once tyrannous, unjust, and fraught with danger to the public service." At the meeting last week the subject was again discussed, and the false and ridiculous position of the Harrogate sanitary authority clearly exposed. The Commissioners have no way out of their difficulty but to confess themselves in fault, and reinstate Dr. Deville with the best grace they can.

## DR. BROWN-SEQUARD'S LECTURE.

IN calling attention to the lecture by Dr. Brown-Séquard, which appears in to-day's LANCET, we think it necessary to remark that it is not the first of the course of lectures about to be delivered by that gentleman, but is intended to form a preamble or introduction to the whole course of lectures—including, we need not say, those at the Royal College of Physicians—which Dr. Brown-Séquard intends delivering in this country.

## SIR WILLIAM FERGUSSON AND DR. FARRE.

WE are glad to be able to state that Sir William Fergusson and Dr. Arthur Farre are progressing most satisfactorily. Sir William Fergusson takes a daily drive and will shortly start for his seat in Scotland.

THE Fifty-fifth Annual Report of the Charing-cross Hospital has been issued. We find that during the year 1875 there were admitted for relief 1181 in-patients and 14,914 out-patients. The average cost of each bed constantly occupied in the year was £98 0s. 5½d.—an amount considerably in excess of previous years. The Council express regret at this increased expenditure, which they endeavour to account for by various reasons, one of which is "a more costly dietary having been prescribed by the professional officers." The usual returns of the medical and surgical registrars are embodied in the report. We here give the results of a post-mortem examination of the body of a woman who died of hydrophobia, detailed by the surgical registrar, Mr. McHardy. "Considerable congestion of the entire white matter of the brain, particularly at base. Heart closely contracted and empty. Lungs normal, save at base of left, where there was a limited amount of congestion. Peritoneum everywhere much injected, but free from adhesions or deposit of lymph. Peritoneal surface of intestines congested. Stomach very deeply congested on its internal surface, almost ecchymosed, but without destruction of mucous lining. Urinary bladder normal and not congested. Other appearances devoid of special interest." Like previous autopsies, the results were negative.

THE Northern Counties Association of Health Officers have lately memorialised Parliament on the subject of infectious diseases in schools. They asked that it should be made lawful for local sanitary authorities during the prevalence of an infectious disease to close all day schools for such a time as their order might direct; that it might be lawful at all times for the local authority to inhibit the attendance of all children from infected houses at school; and that schools should stand to the local authority in all matters affecting health as lodging-houses and slaughter-houses do, and that it should not be lawful for any fresh day-school to be opened without a certificate signed by the chairman of the authority specifying the number of children to be accommodated in such school, and otherwise approving its sanitary arrangements. The memorial last week came under discussion before a meeting of a kindred association, the members of which appeared to be unanimous in its condemnation on the score of superfluousness.

THE Medical Officer of Health for Kensington, Dr. Orme Dudfield, in his last monthly report on the health of the district, has again to call attention to the continued and fatal prevalence of measles. There have been 103 deaths in the parish from this cause since the beginning of the year, of which 71 occurred in the town sub-district during the last thirteen weeks. The deaths were spread over forty-four streets widely scattered. At the Kensington Dispensary 113 cases of measles have been treated within the last three months, and at the Notting-hill Dispensary 91 cases. The cases which occurred in private practice are computed to have reached 1250 in number. Kensington is now also threatened with a visitation of small-pox.

THE Charity Voting Reform Association held their annual meeting last week, under the presidency of Lord Aberdare, at the Westminster Palace Hotel. The meeting was addressed by Sir Charles Trevelyan, Sir Rutherford Alcock, and others, and though most of the resolutions spoken to were of a formal character, enough was said by the President to show that the Association is slowly but surely gaining strength, and will, if not too precipitate in its proceedings, secure eventually the hearty sympathy and support of all who desire that streams of charity should flow in proper channels, and not be diverted, as is often the case at present, to improper uses.

THE Registrar-General, in his last Weekly Return, reports that 13 deaths from small-pox were registered in London during the week ending 8th inst., a higher number than in any week since the middle of November, when the epidemic of 1871–2 had scarcely subsided. Of these 13 deaths, 7 were of unvaccinated children or adults, 3 of vaccinated persons, and 3 cases were "not stated" as to vaccination. Eight fatal cases were registered in the Metropolitan Asylum Small-pox Hospital at Stockwell; this institution contained 70 small-pox patients on the 8th inst., of which 38 were vaccinated and 32 unvaccinated. The number of patients in this hospital showed a decline of four from the number remaining at the end of the previous week. The prevalence and fatality of small-pox in London is principally confined to South London; but deaths from this disease were also registered, during the first week of July, in Chelsea and Clerkenwell.

FROM a resolution that was passed at the last monthly meeting of the Whitby Local Board, it appears that this watering-place is no nearer the accomplishment of an efficient sewerage system, in place of the present system of draining into the harbour, than it was twelve months ago, when the prevalence of zymotic disease was damaging its reputation. The Local Board decided, on the 4th inst., to pay Mr. Mansergh, C.E., his fee of £100 for reporting on the construction of a sewerage system for Whitby, and to offer £100 as a competitive premium for the best plan for a drainage system. The apathy of local sanitary authorities in watering-places in matters affecting their health-reputation is simply unaccountable, except upon the assumption that they calculate upon the carelessness of a large section of the public as to the sanitary condition of the watering-place selected for the annual outing.

WE would bespeak the attention of the Anti-Vaccination League to the following statement of facts. At a meeting of the Salford Board of Guardians, the workhouse hospital surgeon reported that out of 400 cases of small-pox he could not find any one in which the patient had been attacked after revaccination had been successfully performed. Other medical officers present also bore testimony to the protection afforded by revaccination. The mischievous doctrines promulgated respecting vaccination will be estimated at their true value by a public which will take the trouble to consider the significance of such facts as those we have now recorded.

WE regret to have to announce the death of Sir James Lomax Bardsley, Knt., of the Orchard, Greenheys, Manchester. The deceased was M.D. Edin., 1823; F.R.C.P. Lond., 1859; J.P. and Deputy Lieut. for Lancashire; and Consulting Physician to the Royal Infirmary and Dispensary. Some years ago he lectured on the Practice of Medicine and Materia Medica. Sir James was the author of "Hospital Facts and Observations," and of the articles "Diabetes" and "Hydrophobia" in the *Cycl. Prac. Med.* He was knighted in 1853.

Two deaths from puerperal fever were registered in Queen Charlotte's Lying-in Hospital during the week ending 8th inst. During the year 1875 the deaths of nine women were recorded in this hospital, corresponding with the number in 1874, whereas in 1873 the number was as high as seventeen.

THE renewed inquiry into the circumstances attending the death of Mr. Bravo is in progress. We reserve all comment and a summary of the medical evidence until the case is concluded.

THE solution of the question of the drainage of the Thames Valley seems to be as far off as ever. Major Tulloch, R.E., one of the inspectors of the Local Government Board, has recently been engaged in a conference with the Twickenham authorities, and a plan involving precipitation and filtration was laid before the inspector for official sanction. A scheme has also been proposed by Mr. Nelson, the City Solicitor, for uniting all the districts around Hampton and Kingston. The disposal of the sewage is, of course, the main difficulty.

VINCENZO SARTORI, for many years the Pope's body-surgeon, is just dead. Dr. Sartori had numerous posts of trust. As surgeon-in-chief of the Ospedale della Consolazione he earned honourable reputation as an operator and as a clinical instructor. He was a fellow of the Accademia Medica di Roma, and took an active interest in its proceedings. His "Recollections," when the time comes for their publication, will be read with avidity for their vivid portrayal of the *vie intime* of the Vatican.

WE hope that none of the public will confound Mr. Francis Mason, Senior Assistant-Surgeon at St. Thomas's Hospital, with the "Francis Mason" whose name appeared prominently in connexion with a recent will case. They are two quite distinct persons. We have thought it necessary to make this explanation, as the fact of Mr. Mason having been the assistant of Sir William Fergusson (also mentioned in the will case) might easily lead to misapprehension.

THE *Daily News* states that two vessels arrived in the Mersey on Wednesday with yellow fever on board; the brig *Thomas* from Demerara, and the *Anne Mary* from San Domingo. The disease broke out on the voyage to Liverpool, but it is not yet clearly known how many of the crew became affected. Both ships were, on arrival, at once placed in quarantine and the port sanitary authority has taken stringent measures to prevent the disease spreading to the shipping in the port.

WE hear that a request has been lately made to the Committee of the London Hospital to set aside two wards for purposes of clinical instruction for the female medical students attached to the London Medical College for Women. We believe that the medical and surgical officers have unanimously expressed disapproval of the measure.

## HEALTH OF THE CUSTOMS OUT-DOOR OFFICERS.

THE twentieth report of the Commissioners of Her Majesty's Customs is issued this week. Dr. Dickson, in reporting on the health of the men, shows that 1875 was not a healthy year, the sick list at various times being heavily burdened with serious cases, chiefly of pulmonary and rheumatic disease, as might be expected from the trying vicissitudes of temperature which marked the year. The number of deaths, however, has been small. It appears that while admissions to the sick list were more numerous in the Gravesend division, the duration of illness and the rate of mortality were higher in the London division of the force. It is observed that although the Gravesend officers come daily in close contact with ships and persons from all parts of the world, no instance has occurred for many years of their having contracted any infectious malady.

The attendance of patients at the medical inspector's office ranged from fifteen to thirty daily, but in this number are included many who came for advice and relief without withdrawing from duty. The visits to patients confined by the severity of their ailments to their houses were 1487, at about an average distance of three miles from the Custom House.

The mean daily number of men absent from duty through disease or accident was 3·6 per cent. Dr. Dickson has this year tabulated the averages of the yearly reports of the last eighteen years, with the following results:—Diseases of the chest, including consumption, constitute 30 per cent. of the sickness of the force, 28 per cent. of the superannuation or invaliding, and no less than 55 per cent. of the mortality. Rheumatism and gout give the proportion of 14 per cent. of the annual sickness, and 33 per cent. of the superannuation, but the proportion of deaths from these diseases is very trifling. Disorders of the digestive, nervous, and cutaneous systems come next in order of importance, "nervous" diseases yielding the large proportion of 30 per cent. of the superannuations. Febrile and zymotic diseases are in most years comparatively unimportant. Dr. Dickson closes his report with a comparison between the health of the Customs force and the army and navy.

## THE COLLEGE OF PHYSICIANS AND THE VIVISECTION BILL.

THE Royal College of Physicians have drawn up the following petition to the House of Lords:—

"That your petitioners view with deep concern a Bill now before your Lordships, entitled, 'An Act to Prevent Cruel Experiments on Animals,' for medical and physiological purposes, believing that if passed into law, with its present provisions, it will seriously interfere with the advancement of science, the relief of suffering in man and animals, and the welfare of the public.

"That your Petitioners, fully assured of the incalculable benefits to humanity which have been derived from investigations into the laws of life and the nature, spread, and control of disease, and the action of poisons, whether taken accidentally or given intentionally, through the aid of experiments on living animals, from the time of their most illustrious associate William Harvey to the present day, cannot but view with serious apprehension those provisions of the said Bill which threaten to prevent the pursuit, in this country, of those studies with which the best interests of mankind are vitally connected.

"1. Your petitioners would especially pray that the title and preamble of the said Bill may be so amended as not to cast on physiologists and teachers of medical science an unjust and disproved charge of cruelty.

"2. That the limits of research, by experiments, may not exclude any investigations having for their object the acquirement of further knowledge of facts and laws relating to health and disease.

"3. That experiments of research in non-registered places may be permitted on a special certificate granted to persons of known character and position.

"4. That the limitation which the Bill imposes as to the animals which may be made the subjects of experiments may be omitted, inasmuch as domestic carnivorous animals are necessary for many purposes of experimental investigation.

"5. That the provision in Clause 13 apply only to non-registered places.

"Your petitioners, in presenting these requests, are influenced by those sentiments of humanity of which this nation justly boasts, and which have always been, and ever must be, dear to those whose daily duty it is to obviate and alleviate suffering and preserve life.

"And your petitioners will ever pray."

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN important meeting of the Council of the Royal College of Surgeons of England was held on Thursday evening last. Sir James Paget resigned the presidential chair, Mr. Prescott Hewett being elected his successor, and Mr. Birkett and Mr. Simon were made Vice-Presidents for the ensuing year. The following appointments were also made:—Mr. Carter, Professor of Surgery; Mr. Erasmus Wilson, as usual, Professor of Dermatology; Messrs. Flower and Parker, Joint Professors of Comparative Anatomy and Physiology; and Mr. Lowne, Lecturer on Anatomy and Physiology. Sir James Paget was appointed the College representative to the General Medical Council, vice Mr. Quain, resigned; and Drs. Sieveking and Bristowe were appointed Examiners of Medicine.

After some routine business, a discussion arose on the falling off of the funds of the College, there having been an actual loss on the examinations for the fellowship during the past year. It was, therefore, suggested that the fees for the fellowship examinations should be increased, and that unsuccessful candidates should pay a certain sum at each rejection.

The President reported the result of the conference which he and the vice-presidents had with Lord Carnarvon respecting the Vivisection Bill. There is good reason for believing that many of the objections urged by the College have been favourably received, and that some important modifications will be made. We may hope, for example, that none but Government inspectors will be allowed to make inquisitorial visits; that houses occupied by licensed experimenters may also be licensed, though they may not be exempt from the visitation of the inspectors; and that the limit of the animals permitted to be used in vivisection will be extended. Respecting the certificate of qualification in Midwifery, it has been recommended by the legal adviser to the Council that the charter should be altered rather than a special Act of Parliament obtained to prevent persons being placed on the Medical Register as legally qualified medical practitioners on the strength of the certificate in midwifery alone.

An important discussion took place respecting the Conjoint Scheme. As we have already announced, the Senate of the University of London have refused compliance with the scheme as it now stands, but they have proposed certain conditions to the Committee of Reference, on which they are willing to co-operate with the other bodies.

It is pleasing to learn that the Prince of Wales has presented to the Museum of the College some skulls and skeletons of animals he shot whilst in India. For these the Council have made appropriate acknowledgment.

On the motion of Mr. Curling, it was resolved to defer the consideration of examining women in Midwifery until the next meeting of the Council.

The report of the examiners on the Primary and Pass Examinations was presented.

## THE CAMP OF THE SECOND ARMY CORPS AT HOLMWOOD COMMON, DORKING.

THE camp of the Third Division, Second Army Corps, is placed two miles south of Dorking, on a hill of about 300 feet elevation, of Weald clay, covered thickly with patches of gorse and bracken and thickets of holly bushes. Here are assembled the Royal Perth Rifles, the Ayr and Wigtown and the Renfrew Militia Regiments, detachments of Royal Engineer Telegraph Train, Army Service Corps, Brigade and Divisional Staffs—in all nearly 3000 men. The Scotch regiments look well and contented; there are many fine old soldiers amongst them; but the new material is raw yet, though no doubt it will be much improved in a fortnight's time. They are occupied all day at drill and the various camp duties, and at night the bands of the various regiments play. Many then avail themselves of the kindness of a philanthropic lady, who has had a spacious reading-room erected, where tea and coffee can be had at a trifling cost. Surely, amongst so many she may look for some converts, and be cheered by the hope that a proportion may be turned from the beer-house to the ways of temperance.

The encampment is rather small considering the numbers, but the sanitary arrangements are good, and watched over by the regimental and staff officers, and have been thoroughly inspected by the General. The ground occupied by the tents is about 60,000 square yards; there is an interval of ten yards between each tent, and of twenty yards between each battalion. The water is derived from springs in the upper greensand formation of Redlands Bank. It is much contaminated by vegetable organic matter at its

source and along its course to the pipes which convey it to the temporary tanks, and to remedy this filters have been made by the Royal Engineers' department, in which the water is made to pass through four layers of sand and animal charcoal, the effect of which has been to render it perfectly fit for use.

The Armagh Militia will join in a few days, and when the Irish Militia arrive at Horsham the division will be complete.

According to present arrangements, the three divisions of the 2nd Army Corps will assemble at Aldershot about the 20th, and march past on the 22nd. On the 24th and 25th the reserve forces will return to their homes.

# Correspondence.

"Audi alteram partem."

## THE ARMY MEDICAL DEPARTMENT WARRANT OF 1876.

*To the Editor of* THE LANCET.

SIR,—The Warrant for the Army Medical Department has reached India. May I say a few words about it.

1. In the first place no great change can occur in the department from this Warrant for ten years, and Heaven only knows what may occur in that time. In the past ten years we have had three Warrants—viz., 1867, 1873, 1876. Perhaps the next ten may be equally fertile.

2. The War Minister, by adopting a short-service system for the Army Medical Department, has placed himself very much in the power of the profession—that is, he will in ten years' time have to appeal yearly for large supplies of men, who certainly will not come without attractions, and he will find it harder to recruit fresh men every year than to pay old officers a good sum for remaining in the service. Now he may want thirty men per year, then, with short service, he may require fifty; and where are they to come from? Looking at it from a War Office point of view, I think even then the Warrant will be found to a mistake.

3. I desire to point out that before the abolition of purchase a subaltern in the combatant branches of the service could get £1000 for retiring, even if he were a non-purchase man; the rule was £100 a year for each year's service abroad. Are we then, professional men, to be sent adrift with this paltry sum, a sum given to a subaltern who was often five or six years our junior in point of age?

4. Officers of the Army Medical Department will on thus retiring at ten years' service lose their claims for pensions to their widows and allowances to their children. This is an important matter.

5. Ten years' army service quite unfits a man for civil practice in the majority of cases. I spent seven and a half years of my first ten years' service abroad. India and the colonies unfit a man for turning to an English practice when he must be at least thirty-two years of age. Health is more or less shaken, and a man could not begin the uphill work of practice at that age. At thirty-two, if a man be worth his salt, he has made a good centre for work, and to try to do that when past thirty-two would be nonsense. Had Mr. Hardy proposed two classes of officers—viz., one serving for five years, and the other, as at present, for twenty-five, I could imagine a young man coming into the army to pass by those earlier years; but ten years are a deal too many.

6. It is most important to inquire how the new warrant will affect the young officers of the Department while serving in India. The £250 is wholly an English pay rate. When these young men come out here they will receive merely a subaltern's Indian allowance in addition to the £250 per annum. This will be poor pay. In England £250 a year with allowances is a liberal pay. In India such a sum will be absurdly small, because it is the relative rank allowances that are needed in India. They constitute the real *bonne bouche* of Indian service. Queen's pay—viz., the English pay rate—will always be miserable in India unless supplemented by relative rank allowances. These young doctors, under the warrant of 1876, will be awfully sold if they imagine their *Indian* pay-rate will be equally liberal with their home pay-rate; it will be merely £250 per annum with the Indian allowances of a subaltern. This leads me to another paragraph.

7. The junior grades of the Department still rank only as subalterns. Why they should be junior to naval doctors and army chaplains, both of whom join at the captain's rank, I cannot understand. If naval doctors rank with army captains, why should not army doctors do so likewise. In this relative rank question very much important matter lies hid. Please tell the young doctors that relative rank in India and the Colonies means good pay. In India and the Colonies allowances are issued in addition to the home pay, *but they are all based on relative rank.* If a surgeon ranks as lieutenant, he receives home pay *plus* Colonial allowance of a subaltern. If he ranks as captain he receives home pay *plus* Indian or Colonial allowance of a captain. *This is most important.* Now, a young doctor is very badly paid in India because he ranks only as a subaltern. If he had a captain's rank he would be at least £120 a year better off. He comes out to India now worse paid than a young civilian, or a Cooper's-hill engineer. This is quite wrong. We become every year more valuable. Why then should we not have equal rank with the chaplains and the navy doctors? We all know military rank is depreciating in value daily, and to rank with a captain in the army to-day is of no more value than it was to rank with a subaltern a few years ago. The abolition of purchase and the development of the militia and volunteers are the causes of this gradual sinking. Again since 1871 ensigns have disappeared. We doctors in the old time came in at lieutenant's rank; to-day all the young lads from Woolwich and Sandhurst are not ensigns as they were, but lieutenants. We have thus suffered by their being levelled up to lieutenant's rank; and this is another claim for our being pushed on to rank with captains, if not on joining, at least after a couple of years' service.

8. I notice young doctors at Netley are to receive 5*s.* per day only. This is quite too little pay. Every young boy of nineteen—nay, even eighteen—who joins the combatant service is paid better than this; and remember he knows nothing, being merely a lad fresh from school. Five shillings a day pay means getting not enough money to support oneself at Netley, and that is quite wrong. It should be at least 10*s.* a day. At Netley the young doctors do a certain amount of military duty, and if they were not there the staff of commissioned medical officers would have to be increased to do the work. Remember that the War Office pays combatant officers liberally while they are learning their work at staff colleges, garrison institution classes, the long course of artillery at Shoeburyness, and at a number of other places of instruction. We cost the State nothing of all this, and it presses hard on a young doctor to be underpaid while undergoing many expenses at Netley.

In conclusion, I beg to draw your attention and the attention of the young doctors to the pay they will receive in India. It will be very bad, and they may reckon on spending many of the golden years of their life in this country, where good pay is almost the only possible compensation for hard work and exile.

I am, Sir, yours,

India, 1876. I. V. R. C.

## TREATMENT OF DIPHTHERIA.

*To the Editor of* THE LANCET.

SIR,—In your issue of July 1st are two communications, one recommending the internal administration of chlorate of potash, the other the topical application of carbolic acid and glycerine in the treatment of diphtheria.

Will you allow me to state that for more than ten years I have been in the habit of treating all diphtheritic cases with both remedies, and hitherto with undeviating success. The chlorate I give acidulated with hydrochloric acid, and this, while exerting a powerful restorative influence on the system generally, is also, in all probability, of direct value as a cleansing wash to the affected throat as swallowed. The carbolic acid I use in the form of glycerine of carbolic acid, either in the form of gargle, spray, or by inhalation of its vapour, and its good effects are almost invariably manifested within twenty-four hours in destroying all fetor and

detaching the leathery exudation characteristic of this disease. I find, too, the carbolic acid to be the best remedy in that form of tonsillitis which is accompanied by offensive ulcers. Of course, whatever drugs are used in the treatment of diphtheria, all practitioners are at one in affording the patient all possible support.

I am Sir, your obedient servant,

Beckenham, July 11th, 1876. M. J. STURGES, M.D.

## THE BRUSSELS EXHIBITION.

(*From our Special Commissioner.*)

### No. I.

THE Exposition Internationale d'Hygiène et de Sauvetage, situate in the Park at Brussels, is a show of no ordinary kind. It differs from previous exhibitions of an international character in this, that *Art* is excluded, so that what information it has to convey is not covered with an attractive and glittering mantle, as has been the case at London, Paris, and Vienna; and those who have no appetite for scientific facts and no aptitude for considering the dry details of existence, had better stop away. To a thoughtful person of either sex, however, the Exhibition is one of extraordinary interest, for members of every grade of society will there find objects which touch them closely. Who is safe against shipwreck or fire, and who can fail to be interested in the means of averting or escaping from these terrible calamities? The philanthropist and the working classes will both be interested in the plans and models for making existence more wholesome and more tolerable, and the British householder will find that Russian architects are more careful than the English to provide warmth and fresh air in the houses which they construct for their patrons. To professional visitors the Exhibition will be in some sort a technical museum. Engineers will see the latest additions to steam and hydraulic machinery, miners will be confronted with all the appliances to make their occupation safer and less irksome, architects will be able to inspect an enormous quantity of architectural plans, and, lastly, the members of the medical profession will see the latest practical outcome of ingenuity and science, whether at home or abroad.

It is greatly to be regretted that, owing to the calls of the Philadelphia Exhibition, the Americans have been unable to take part in the show. We are consequently deprived of the instruction which that most practical of nations would be able to afford in every class of exhibits.

The building in which the Exhibition takes place is a long wooden gallery or shed built in the form of a triangle, and enclosing an open wooded space. The building has a glass roof, and being shaded by curtains inside and by an abundance of trees on the outside, and fresh air being plentifully admitted, it is an agreeable place for lounging in even in weather like that of last week. When I said that Art was excluded, I spoke, perhaps, too severely; for although the building itself has no architectural features, the internal decorations are pretty and effective. The Russian section and the model of the Russian school, to be found in the Park, are exceedingly pretty, being constructed of carved wood painted and picked out in gay colours, and the rest of the building is adorned with flags and drapery, which are effectively arranged.

The variety of the objects shown is very remarkable, and one is astonished at the way in which the commonest things are considered as ministering to man's health and comfort, and as tending to prolong his life. The objects exhibited are arranged in ten classes, thus:—

1. Means of prevention, help, and salvage in case of fire.
2. Means of lessening the dangers on water.
3. Means of preventing railway accidents.
4. Help to the wounded in times of war.
5. Public health.
6. Industrial hygiene and means of lessening the unwholesomeness of trades.
7. Domestic and private hygiene.
8. Medicine, surgery, and pharmacy in relation to the preceding classes.
9. Institutions having for their object the amelioration of the condition of the working classes.
10. Hygiene and "sauvetage" in relation to agriculture.

It will be noted that in the foregoing list I have, in describing the first class, translated the word "sauvetage" by its equivalent "salvage," whereas in describing Class 10 I have allowed the French original to remain untranslated, since the French connotes far more than the English, and implies every possible means of rescuing life from dangers of every kind which may surround it.

Each nation has its own space allotted to it, and the lion's share of the space is occupied by Belgium, Germany, Great Britain, Russia, and France. Austria, Italy, the Netherlands, Norway, Sweden, and Denmark, also show a certain number of exhibits, but in the space which they occupy they are far behind "the Great Powers." Readers of THE LANCET who may visit Brussels during the forthcoming vacation ought on no account to neglect this Exhibition, for as an intelligent body, they will find interest in all parts of it, and in every class of exhibits; but it is manifestly not the duty of a correspondent to a medical journal to deal with matters which will be better and more fully described by the newspapers which treat technically of the various departments. I shall confine my observations entirely to medicine and hygiene; and I will at once warn the reader that Great Britain is very badly represented in these matters, and if one were to judge by the Exhibition alone, the conclusion would be arrived at that Russia, Prussia, and Belgium are as far in advance as we are in the rear.

In Class 4 (Help to the Wounded in time of War) England has seven exhibitors. The first of them is the Medical Department of the Admiralty, and, happily for the reputation of the country, the exhibit of "My Lords" is obscurely hidden away in a tent in the garden, so that I found it only by making diligent search and asking many officials. It consists of two beds used for the sick on board ship—iron swing-cots supported on stanchions screwed into the deck. They are heavy, cumbersome, and ugly. On the other hand, anyone who will compare these cumbrous bedsteads with some models (No. 86) in the Russian section, will be struck by the extreme neatness of an invention by Dr. Müller, which consists of a cot swung from the ceiling, which is at once a cot, a hammock, and a chair, and in which the wounded soldier or sailor can be hauled safely through hatchways or be lifted from a small boat on to a transport. That the leading naval Power, famous alike for its humanity and its prowess, should show nothing but two antiquated iron bedsteads for alleviating the troubles of its wounded servants is greatly to be regretted.

Let me pass on, however, to what the War Office can show. These exhibits (No. 84) comprise the regulation instruments and hospital appliances, models of mule paniers for transporting the sick, an ambulance waggon, and a double-skinned field-tent hospital erected in the grounds of the Exhibition. These objects are all familiar enough, and need not detain us.

The Order of St. John of Jerusalem (85) shows a litter on wheels (from designs by Neuss of Berlin), an exact copy of which is also to be found in the German section. Surgeon-Majors McNalty and Porter exhibit their splints of iron wire; Major Wethered exhibits a litter which is convertible into a hammock, a chair, or a bed, and which I recommend to the notice of the War Office and the Admiralty. Finally, Mr. J. S. Young sends a descriptive report of the Herbert Hospital. And this is the total display by a so-called "great Power" of apparatus for relieving the sick and wounded in time of war. As we are clearly not destined to instruct other nations in this matter, I trust that our authorities will not fail to profit by the exhibits which other nations show for our edification as well as that of others.

In Class 8 (Medicine, Surgery, and Pharmacy in relation to the other classes) we have twenty-two exhibitors! The fact would be laughable if it were not serious. Gabriels and Jamieson show false teeth and dental instruments (201, 208, 209). The Surgical Aid Society (201), Grossmith (205), Masters and Sons (210), Salt and Co. (217), and Tyrrel (222) show instruments, trusses, and orthopædic apparatus. There are two cases of cod-liver oil and drugs (215, 218).

A perambulator (220) for sick children, so arranged that a couch allowing of the recumbent position can be fitted to the seat—a very excellent arrangement, as it seemed to me,—is shown by Charles Thompson of Newington Butts, who is the only representative of British invalid chair-manufacturers. The optical sciences of Britain (the home of Newton, Young, and Lister) are represented by Mr. Swift, of University-street, who sends a case of microscopes (219). Hayes and Co. exhibit surgical needles (207). Griffins send hygienic and surgical books (204). Martin and Co. send flannel (211). The North British Rubber Company send india-rubber goods (213). Pulvermacher shows his chain-bands (214), and the Remington type-writer (216) is, oddly enough, squeezed into this class. Mr. Twining shows his "mesopodium" (221). Dr. R. J. Lee shows an inhaler (210). Dr. Hardwicke (206) shows apparatus for air analysis; and, lastly, Mr. Atkinson, of the Leeds General Hospital, shows a specimen page of the Clinical Register in use at his Hospital. This last is the best exhibit in the department; it is composed of a series of columns for the reception of all the particulars about the patient, and notably of a special column set aside for an illustration of the case by means of a photograph, pen-and-ink sketch, or a drawing of a more elaborate character. If the Register is really like this specimen page, I hope that Mr. Atkinson will some day exhibit it in London.

I have gone into details lest it should be said that, in visiting the Exhibition, I had omitted to inspect carefully our own section. The fact is that in Classes 4 and 8 we are really not represented at all, and we have a right to ask why this is so. Is it due to obstinacy on the part of exhibitors, to the counter-attraction of the Philadelphia Exhibition, or to the mismanagement of the Executive Committee? The first two causes surmised apply equally to other nations, but have not acted so prejudicially it would seem, for in Class 4 the Germans have 41 exhibitors (out of a total of 307) who show an enormous variety of articles. The Belgians have 22 exhibitors (out of a total of 452), and the Russians 18 out of a total of 143. The total number of British exhibitors is 244.

In Class 8 the Germans have twenty-nine exhibitors, the Belgians thirty-one, and the Russians only seven. I shall demonstrate, however, that our show is not only inferior in quantity, but also in quality

If we compare the German executive committee with the English it will not be difficult to surmise why the one country is so strong in Classes 4 and 8, and England is so weak. Looking down the list of committee-men we find the names of Virchow (vice-president), Professor Esmarch, Dr. von Langenbeck, Dr. Liebreich, Professor von Pettenkofer, von Ziemssen of Munich, and nine other medical men only less eminent than those I have mentioned. The committee contains the names also of men eminent in science, whose reputation is world-wide and justly great. It numbers 124 persons.

Turning to the English executive committee we find it consists of forty persons, and among these forty very few have any reputation beyond their own spheres. There is only one medical man—Dr. William Farr—and there is no representative of either the military or naval medical services nor the medical service of the Local Government Board.

There are twelve naval and military officers (nearly thirty per cent. of the whole), a strangely large number on a committee whose object is the saving and not the taking of life. For the rest, they are mainly amateurs. Lord Alfred Churchill (president), Lord Claud Hamilton, Lord Robert Montague may be taken as types of the whole; and what, it might be asked, do these gentlemen know of hygiene? The secretary is Major Burgess, who is secretary to the amateur society known as the Red-Cross Society. Colonel Loyd Lindsay also represents the Red-Cross Society; and, with two representatives on the committee and with many thousands lying idle at the bank, why, it may be asked, has the Red-Cross Society no exhibit? Here was an opportunity for the Society to vindicate its reputation, and the opportunity is lost. There are also three aldermen, who must be veritable amateurs in hygiene. There is no architect, and no engineer save Mr. Bazalgette, who, for some reason, shows neither plans nor models.

With such a committee to guard the scientific reputation of England, is it surprising that in this international contest we have gone to the wall? The English department, too, has more the aspect of a bazaar than the German, and the right of exclusion has not been so rigidly enforced as it might have been. The catalogue is vulgar, and in it tradesmen have been allowed to puff their own goods instead of leaving the work of praise or blame to the legitimate judges. In my next letter I shall deal with the exhibits of other countries.

## PARLIAMENTARY INTELLIGENCE.

### HOUSE OF COMMONS.

CORONERS.

LORD F. HERVEY called attention to the law respecting coroners and coroners' inquests, and, seconded by Mr. Serjeant SIMON, moved a resolution declaring that further legislation is desirable with regard to the qualification and appointment of coroners and the mode of holding inquests.

Mr. READ held that the office might be abolished without any injury to the public service. Very many inquests were held without necessity, and an inquiry before a magistrate, with the assistance of a public prosecutor, would suffice.

Mr. SHAW-LEFEVRE opined that the results of coroners' inquiries were frequently most unsatisfactory, and made suggestions for facilitating the re-opening of inquests.

Mr. CROSS admitted that the law regulating the appointment, distribution, and qualifications of coroners was bad, and required amendment. He was of opinion that the coroner should be a trained lawyer of a certain standing. He deprecated placing the appointment in the hands of the Secretary of State, and thought it should not be elective, as at present. Mr. Cross hoped that Lord F. Hervey's motion would be carried, in order that the attention of the country might be directed to the subject and to the urgent necessity for reform.

After some remarks from Sir T. Bazley, Dr. Lush, and Mr. H. T. Cole, the motion was agreed to.

## Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology, at meetings of the Board of Examiners on Monday, Tuesday, and Wednesday last:—

H. Evans and A. M. Kavanagh, Dublin; J. Holms, J. L. Denison, A. N. Young, T. Bushby, P. Canavan, W. T. Clegg, W. A. Beckett, A. Faulkner, and T. W. O. Pugh, Liverpool; A. Harding, King's College; W. H. Wheeler, T. A. Colt, and G. M. Smith, Bristol; F. W. French, W. Muir, W. J. Pegge, J. Sutcliffe, C. P. Mitchell, and J. H. Thompson, Manchester; H. H. White and W. Bourke, Edinburgh; T. Millar and J. H. Allard, Glasgow; W. H. Cheetham, F. W. Story, W. H. Brown, and G. H. Rowe, Leeds; F. J. Waldo, Cambridge; H. Barron, Liverpool and University College; W. Dales and S. F. Beard, Sheffield; W. I. Lory, R. T. E. Davies, N. S. Whitney, and C. B. Hill, University College; F. Spurgin, W. A. Phillips, and F. B. J. Baldwin, Guy's Hospital; R. S. Hawks, C. J. Lathbury, J. E. Nicholson, and J. S. Walker, St. Bartholomew's Hospital; H. W. Thomson, Charing-cross Hospital; W. E. Dixon, Middlesex Hospital; J. S. Fallon and T. G. Munyard, Westminster Hospital; G. J. C. Thomson and A. E. R. Bowen, St. Thomas's Hospital; E. S. Vachell, London Hospital; and T. A. Bertolacci, St. George's Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on July 6th:—

Anderson, Charles Morten, Moville, co. Donegal.
Giles, Peter Broome, Staunton-on-Wye.
Johnston, John, Ampton-place.
Paul, Reginald, Langport, Somerset.
Robertson, George Scott, Dover-street, Piccadilly.
Stackpoole, Charles Aitken, Stafford-place.

The following gentlemen passed the Primary Professional Examination on the same day:—

Hearnden, William Frank, Guy's Hospital.
Rawson, Ernest, St. Bartholomew's Hospital.
Scriven, John Swain, St. Mary's Hospital.
Vlieland, Charles James, St. Bartholomew's Hospital.

LAST week Sir Alexander Armstrong, K.C.B., Director-General of the Navy Medical Department, made an official inspection of the Royal Naval and Marine Hospital at Chatham, in charge of Inspector-General Pottinger, and afterwards visited the Dockyard.

DR. BREMOND has just published in Paris the first number of a medical journal called *Review of Medical Literature*.

AT the quarterly meeting of the Directors of the Naval Medical Compassionate Fund, held on the 11th inst. —Dr. J. W. Johnston, inspector-general, in the chair—the sum of £80 was distributed among the various claimants.

A DAILY contemporary reports that the Duke of Sutherland has threatened the Burslem Board of Health with an injunction if within a month measures be not adopted to purify the sewage flowing into the Trent, which runs through his Grace's estate at Trentham.

THERE are at present, according to a daily contemporary, sixty-three female medical students in Switzerland, twenty in Paris, and one, a Russian, in Italy. The students of Paris are chiefly English and Russian, only three or four being French. Of the sixty-three in Switzerland thirty-nine are Russians, eight Americans, five Austrians, four Germans, three Servians, one English, and one French.

VACCINATION GRANT.—Mr. McCaskie, of Anston, Rotherham, has this year been awarded the Government grant for efficient vaccination. This is the third occasion on which Mr. McCaskie has received the grant.

DONATIONS TO MEDICAL CHARITIES.—The Earl of Leicester has subscribed £5000 towards the £35,000 required for the improvement and enlargement of the Norfolk and Norwich Hospital. The Birmingham Medical Mission has received £100 from X. Y. Z. The Hastings Dispensary has received £250 under the will of Mr. W. D. Lucas Shadwell.

HEALTH OF ROCK FERRY.—At the monthly meeting of the Higher Bebington Local Board, held in the board-room, Rock Ferry, Mr. G. B. Crow in the chair, Dr. Spratley, the medical officer of health, reported that there had been only one death in the township during the last month, and that one an infant of premature birth; this makes but fifteen deaths in twelve months, in a population of upwards of 3000.

SCIENTIFIC GRANTS OF THE BRITISH MEDICAL ASSOCIATION.—We are requested to state that applications for grants of money in aid of scientific research should be made without delay to the General Secretary of the British Medical Association, 36, Great Queen-street, W.C., in order that a specific sum may be asked for by the Scientific Grants Committee at the annual meeting of the Association at Sheffield. Applications should include particulars of the proposed research.

# Medical Appointments.

BURY, H. C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for No. 4 District of the Barnet Union, vice G. Bury, F.R.C.S.E., L.S.A.L., resigned.

CHAPMAN, J., L.F.P. & S.G., L.M. & L.S.A.L., has been appointed Medical Officer of Health for the Ludham Rural Sanitary District, Norfolk.

CLUTTON, C. C., has been appointed Resident Assistant-Surgeon to St. Thomas's Hospital, vice MacKellar, appointed Assistant-Surgeon.

DAVEY, R. S., M.D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Walmer District of the Eastry Union, Kent, vice R. G. Davey, M.R.C.S.E., L.S.A.L., deceased.

DAWSON, E., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer for the Inkberrow District of the Alcester Union, vice Martin, resigned.

DEELEY, A. W., L.K.Q.C.P.I. & L.M., has been appointed a District Surgeon to the Salford and Pendleton Royal Hospital and Dispensary, Manchester, vice Edge, whose appointment has expired.

DEYLAND, J. W., M.R.C.S.E. & L.M., L.S.A.L., has been reappointed Medical Officer of Health for the Kettering Rural Sanitary District, at £60 per annum for three years.

DUFFIN, Dr. A. B., has been appointed to the Chair of Pathology at King's College.

EVANS, A. G., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Towcester Rural Sanitary District, vice Haviland, whose appointment has expired.

GEMMELL, W., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Parish of Kirkmaiden, Wigtownshire, vice Dunbar, resigned.

GRAMSHAW, H., L.R.C.P.I., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Lowestoft Friendly Societies Medical Institute, vice Worthington and Sons, resigned.

HAYES, T., M.D., M.R.C.S.E., has been appointed Medical Officer to the Workhouse, Rathkeale Union, co. Limerick, and Consulting Sanitary Officer to the Rathkeale Rural Sanitary Authority, vice O'Hanlon, deceased, and Medical Officer for the Rathkeale No. 2 Dispensary District, vice McCoy, appointed to the Rathkeale No. 1 Dispensary District.

KERR, D., M.D., M.R.C.S.E., has been appointed a Consulting Surgeon to the Royal Infirmary, Aberdeen, on resigning as Surgeon.

MACDONALD, J., M.B., C.M., has been appointed Medical Officer and Public Vaccinator, and Medical Officer of Health for the Parish of Bracadale, Isle of Skye.

MACKAY, A., L.R.C.S.Ed. & L.M., has been appointed Assistant-Surgeon to the Derby Amalgamated Friendly Societies Medical Association, vice Moorhead, resigned.

MACLACHLAN, H. K., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer and Public Vaccinator for the Parish of Kilmaurs, Ayrshire, vice Anderson, resigned.

PRITCHARD, Dr. U., has been appointed Aural Surgeon to King's College Hospital.

REED, J., M.R.C.S.E. & L.S.A., has been appointed Medical Officer and Public Vaccinator to the St. Mark's District of the West Ham Union, vice Morris, deceased.

SCOTT, W. L., F.S.L., has been appointed Public Analyst for Glamorganshire: £2 12s. 6d. for each Statutory Report, 15s. for each Analysis and Certificate, and 10s. 6d. for attending as a witness at the place where he resides, or 21s., with 3d. per mile, going and returning, elsewhere.

SHARKEY, Dr. S. J., has been appointed Resident Assistant-Physician to St. Thomas's Hospital, vice Turner, appointed an Assistant-Physician to the London Hospital.

SMITH, G. C., L.R.C.P.Ed. & L.M., L.R.C.S.Ed., M.R.C.S.E., has been re-appointed Medical Officer of Health for the Newtown and Llanllwchaiarn Urban Sanitary District.

TATHAM, G. G., L.R.C.S.Ed. & L.M., has been appointed Medical Officer to Salford Fever Hospital.

THOMSON, W., M.D., has been appointed Medical Officer of Health for the Peterborough Rural Sanitary District, vice Syson, whose appointment has expired. £100 for one year.

WARNOCK, Dr. H., has been appointed Medical Officer to the Workhouse, Clogher Union, co. Tyrone, vice Scraggs, resigned.

WILLIAMSON, J. M., M.D., has been appointed Resident Medical Officer to the St. Marylebone General Dispensary, Welbeck-street, vice Barron, resigned.

WILLS, W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Torquay District of the Newton Abbott Union, vice Gill, resigned.

YOUNG, A. H., has been appointed Demonstrator and Assistant-Lecturer on Anatomy at the Owens College, Manchester, vice Perrin, resigned (but who retains the office of Medical Tutor).

YOUNG, W., M.D., has been reappointed Medical Officer of Health for the Malton Rural and Urban Sanitary Districts, at £200 per annum for three years.

# Births, Marriages, and Deaths.

## BIRTHS.

FOWLER.—On the 2nd inst., at Cirencester, the wife of O. H. Fowler, Esq., of a son.

HORTON.—On the 13th May, at Palm House, Cape Coast, the wife of James Africanus Beale Horton, M.D., Surgeon-Major, of a daughter.

LORD.—On the 3rd inst., at Woodford House, Armagh, the wife of R. G. Lord, M.D., Deputy Surgeon-General, Indian Medical Department, of a son.

MACAULAY.—On the 3rd inst., at Kilworth-Beauchamp, the wife of Thos. Macaulay, M.R.C.S.E., of a son.

MARRIOTT.—On the 3rd inst., at Heathfield, Leicester, the wife of C. H. Marriott, M.D., of a daughter.

MARTIN.—On the 2nd inst., at Gorse-hill, Ballybay, the wife of Dr. Brownlow R. Martin, of a daughter.

SHAW.—On the 3rd ult., at St. Thomas's Mount, Madras, the wife of Charles Edward Martin Shaw, M.R.C.S.E., Surgeon R.A., of a son.

SIMPSON.—On the 3rd inst., at Victoria-park, South Hackney, the wife of Thornton G. Simpson, L.R.C.P.Ed., of a son.

WHIDBORNE.—On the 10th inst., at The Strand, Topsham, the wife of George H. Whidborne, M.R.C.S.E., of a daughter.

WINTERBOTHAM.—On the 10th inst., at Bridgwater, the wife of W. L. Winterbotham, M.B., of a son.

## MARRIAGES.

BONNYMAN—JENKINS.—On the 8th inst., at the Pro-Cathedral, Kensington, James Bonnyman, M.D., Surgeon-Major 64th Regiment, to Frances Caroline, daughter of the late George Jenkins, Esq.

TREEVES—WARWICK.—On the 4th inst., at All Saints, Croxley-green, Edward Treeves, M.R.C.S.E., to Mary, daughter of the late T. Warwick, Esq.

## DEATHS.

ADEY.—On the 2nd inst., at Battersea-park-road, Frederick C. Adey, L.K.Q.C.P.I., aged 25.

ALABONE.—On the 3rd inst., at Richmond-road, Hackney, Edwin George Alabone, M.R.C.S.E., aged 51.

BOXWELL.—On the 29th April, at Blackwood, Australia, John H. Boxwell, L.K.Q.C.P.I., aged 32.

BREWER.—On the 4th inst., at Stow-hill, Newport, Monmouthshire, Jehoida Brewer, F.R.C.S.E., aged 74.

BROADBENT.—On the 6th inst., at Everton, Liverpool, James Charles Broadbent, L.K.Q.C.P.I., aged 39.

DOWNES.—On the 2nd inst., at St. Leonard's, Sussex, Ezra Thomas Downes, M.R.C.S.E., late Surgeon-Major Bengal Army, and Assay Master at the Mint, Calcutta, aged 74.

EYRE.—On the 1st inst., at The College, Epsom, Stratford Alfred Eyre, M.R.C.S.E., aged 81.

GRIFFITH.—On the 6th inst., at Wrexham, Thomas Taylor Griffith, F.R.C.S.E., aged 80.

JOHNSTON.—On the 2nd ult., at Midleton, co. Cork, Benjamin Johnston, M.D., aged 59.

RINGLAND.—On the 7th inst., at Harcourt-street, Dublin, John Ringland, M.D., aged 60.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

# Notes, Short Comments, and Answers to Correspondents.

### THE HARVEY TERCENTENARY MEMORIAL.

WE are requested by the Honorary Secretaries to say that they will be greatly obliged if gentlemen who desire to assist this object will kindly communicate their intentions *at once* to the Hon. Secs., Mr. G. Eastes, M.B., 5, Albion-place, Hyde-park-square, London, W., or MR. W. G. S. Harrison, B.A., Town Clerk, Folkestone, as a meeting of the Committee will be held the week after next for the purpose of putting the memorial in the hands of some first-rate artist for execution.

### FUNGI.

THE peasantry of Southern Europe consume mushrooms and kindred vegetables in great quantities; often, however, mistaking for edible the non-edible varieties, and suffering, sometimes fatally, in consequence. On the 21st of May, Prof. Schiff demonstrated before the Medico-Physical Society of Florence that the non-edible fungi, however many their varieties, possess one and the same poison, probably *muscarina*, discovered by Schmiedberg in the *Amanita muscaria*. The symptoms caused by this poison may all be reduced to its action, more or less intense, on the different systems of the organism; though other minor noxious principles may, and possibly do, co-exist with it, and modify the symptoms accordingly. Having shown the influence of muscarina on the glandular, respiratory, circulatory, and intestinal apparatus, Prof. Schiff illustrated the antagonistic action that exists between muscarina and some of the solanaceæ, like belladonna and stramonium, with their alkaloids, atropine and daturine, and proved from experiments on rabbits that the fungous poison may be promptly and efficaciously counteracted by daturine particularly. Italian apothecaries now keep that alkaloid in the rural districts, where the consumption of non-edible for edible fungi is apt to occur, and there is no saying how soon such frequent mistakes may cease to have a fatal or even dangerous result.

*Norge.*—Published by Alb. Cammermeyer, Christiania.

### POISONING BY VIRGINIAN CREEPER.

*To the Editor of* THE LANCET.

SIR,—I send you an account of two cases of poisoning which I believe to be uncommon, and, if considered of sufficient interest, I should be glad if you would insert the following in THE LANCET.

On June 22nd, two little girls, aged respectively five years and two years and a half, chewed the leaves of the common Virginian creeper. They do not appear to have swallowed any, but only the juice. The masticated leaf they spat out. Very shortly after taking the leaves, about 5 P.M. on the same day, they were both seized with violent vomiting and purging, with considerable tenesmus, but in neither the vomit nor the stools was there any blood or fragment of leaf. Immediately afterwards they became collapsed, very pale, skin cold and sweating, and the pulse hardly to be felt (the father's authority). They remained apparently in a deep sleep for about a couple of hours, when they were roused by a return of the vomiting and purging. They were then given large quantities of milk with some rum, after which they revived. Neither of the children had any sign of convulsions. When I saw them, about nine the same evening, they were recovered to a great extent. Both were very pale, the younger still very prostrate. The skin was rather cold, and there was marked dilatation of the pupils. Pulses of both 130, and very thready. I did not see any of the vomit or the stools; but the parents say that there was nothing peculiar about them, except that they were very liquid. There is no doubt about what the children had taken, because on recovery the father took the elder child into the garden, and she showed him the creeper as what they had been chewing.

I do not remember to have heard or read of poisoning from this common plant; but it is evident that a very small quantity of its juice has powerful irritant effects, and produces very dangerous symptoms. It would be interesting to know whether there are any other cases on record, and what have been the results.

As regards the treatment, nothing could have answered better than the milk which the father gave, and I only followed it up with a good dose of castor oil, and the next day the children were quite well.

Yours faithfully,

Chatham, June 24th, 1876. HERBERT L. BERNAYS.

### VETERINARY SUPERVISION.

THE Police Commissioner of Paris has just appointed in the twenty districts a staff of veterinary surgeons, whose duty it is to watch over the sanitary state of the horses used for trade purposes. They are empowered to order, for the sake of public health, the cleansing and disinfection of stables, as also the yards where the droppings are deposited.

### CARBOLIC ACID IN TOOTHACHE.

*To the Editor of* THE LANCET.

SIR,—In your journal of last week appears a letter from MR. W. H. T. Power, in which he states that he is unaware of any account as to the value of carbolic acid in toothache. I beg to state that I have been in the habit of employing it in such cases for the last five or six years where patients have strongly objected to extraction, and where there has been extensive caries. The most eligible way of applying it, in my opinion, is equal parts of Calvert's carbolic acid (liquefied by heat) and collodion. In the majority of instances which have come under my observation it has given almost instant relief. My impression was that the use of this drug was more extensively employed in such cases than Mr. Power's letter seems to convey.

Yours obediently,

London, July 3rd, 1876. EDWARD A. PIGGOTT.

### DANGERS OF THE VAPOUR-BATH.

A CASE of death in a vapour-chamber was lately before one of the minor Courts of Paris. An old man, aged seventy, called on May 29th last at a bath establishment, and asked for a vapour-bath, being suffering from an attack of sciatica. He entered the chamber, and as in about twenty minutes he did not reappear, the attendant went in and found him stretched on the floor. The patient was carried to the Charité Hospital whilst still breathing, but died shortly after admission. The question was whether the attendant was guilty of homicide by imprudence; but in the face of these facts he was acquitted. This will be a warning to the crowds of people who in Paris frequent vapour-baths. It is quite usual for groups of individuals to go, without any medical advice, and have the *assessment* of the vapour-chamber. When it is considered, on the other hand, that rheumatism for which diaphoresis is sought is frequently connected with heart disease, caution becomes doubly necessary. In fact, it has been proposed that no vapour-bath should be administered except by medical prescription. Nor should we neglect to look at home, where Turkish baths are so freely indulged in. The high temperature may induce fatal cerebral congestion. Indeed, the Paris accident was attributed by M. Gallard, at the Charité Hospital, to congestion of brain and lungs.

*Dr. L. Forbes* is thanked.

### THE PUBLIC SERVICES.

*To the Editor of* THE LANCET.

SIR,—At a time when the Government is advertising for surgeons to fill a large number of vacancies in the army, navy, and Indian medical services, it may not be out of place to offer a few suggestions to intending candidates on the comparative merits of the three services.

The army medical service comes before the profession in an entirely new character, and the conditions offered are at least distinctly stated, although they are not, I should think, likely to prove attractive either to those men who are desirous of spending their lives in the army, or to those desirous of passing a few years in seeing something of the world; as in the one case there is no certainty of being retained in the service longer than ten years, whilst in the other the period of service is too long, and the retiring bonus too small. On this service, however, the most uninitiated can form an opinion, owing to the open way in which its conditions have been proclaimed by Government.

The naval medical service appears to me at the present time (and I have had considerable personal experience of it) to be the best of the three: the pay, position, and pensions of medical officers are good; the foreign service is broken up into short periods, and, judging from the experience of the past, a surgeon need not anticipate much more than ten years abroad in a service of twenty years, whilst many of these will be spent in pleasant and healthy climates. The only disadvantage which attaches itself to the naval service is the necessity of spending one's life on board ship, to which the majority of men have a great antipathy—an antipathy founded, in my opinion, on mistaken ideas as to the actual conditions of such a life, and one which will in most instances disappear after a short experience. As a general conclusion, I can honestly say, speaking from personal experience, that the navy is a service in which a surgeon may pass a pleasant life, and feel certain, under the present administration, that the zealous performance of his duty will not go unrewarded.

Finally, with regard to the Indian service, which at present enjoys an unrivalled popularity in our medical schools—a popularity which I have no hesitation in saying is entirely unmerited, and which I regret to say, Sir, has been contributed to by the powerful influence of your pen,—this service is not what it was in the days of the East India Company. It derives its position, like many of the aristocracy of England, from the fame of its ancestor. In all comparisons which have been made, the fact appears to have been lost sight of, that in the Indian medical service a man is condemned to a life in India, and not only that, but most frequently the worst stations in India, without the chance of home service. This circumstance alone is sufficient to prove that a vast chasm divides this service from the others. And what advantages, it may be asked, does the Indian medical service offer in compensation for this exile? As regards pay, a junior surgeon is actually worse off than his contemporary in the British service; he gets the most unhealthy and out-of-the-way stations; has few or no companions, frequently no mess; has the stigma thrown upon him of belonging to a "black" service; and has the prospect, if he be fortunate enough to survive, of retiring on a pension barely sufficient to provide the necessaries of life, with, in many instances, a constitution thoroughly broken down, and unfitted for life in the climate of England. True, in some few instances men do obtain lucrative appointments in India; but these are yearly diminishing in number and value, thanks to the pruning-hooks of the Government, and do not affect the general body of the service.

I would urge, therefore, on all intending candidates the necessity of ascertaining *accurately* the conditions on which they enter any of the services, as it is a deplorable fact that the majority of surgeons in the Indian medical service within the past ten years have landed in India under entirely false impressions as to the pay they were to receive, and these impressions were produced by the ambiguous wording of the India Office memorandum on the "Pay and Position of Medical Officers"; not a few, I regret to say, have more recently been owing to the statements made in Dr. Francis' "Indian Medical Officers' Vade-Mecum."

In concluding this very rough and imperfect statement of my experience of the public medical services, I would call upon all those who feel that they have been attracted to the Indian medical service by ambiguous representations to give public expression to their feelings, so as to place this service in its proper light before the profession.

I am, Sir, your obedient servant,

London, July, 1876. VERITAS.

### THE WAR IN THE EAST.

A CORRESPONDENT wishes to know by whom surgeons are appointed to the Servian forces, and also the offices in London of the Herzegovinian Committee.

X.—There is no "custom" to which an appeal can be made in default of a special agreement; but in the absence of any pressing need for the removal of a patient, three months would seem a reasonable period of notice.

### UNWHOLESOME HOUSES AND URBAN SANITARY AUTHORITIES.

IN December last several houses in different stages of construction were demolished by the order of the Portsmouth Town Council, as the urban sanitary authority, after due notice to the proprietors, under powers contained in bye-laws sanctioned by the Home Secretary. The grounds of objection to the dwellings were threefold: the houses had been erected on the sides of a new street which had not been constructed to the approval of the Local Board; plans of the proposed buildings had not, in accordance with the bye-laws, been deposited with, and approved by, the local surveyor; and thirdly, in spite of due notice given to the proprietors that these houses had been erected in contravention of the provisions of these bye-laws, no measures were taken to remedy their defects. A bye-law gives the local authority power to demolish, under these circumstances, houses within forty-eight hours of giving due notice; but the Portsmouth authority in this instance allowed sixteen days to elapse before they proceeded to the extreme course of having the houses pulled down. The builder has brought an action against the Portsmouth Town Council for damages sustained through the demolition of the houses, which was tried on the 6th instant at the Hampshire Assizes at Winchester. The usual amount of contradictory evidence was produced as to the condition of the ground and the nature of the houses; but the jury eventually found that the ground on which the houses were built was not in a fit condition for the erection of dwelling-houses, and, in face of the official reports of Mr. George Turner, the medical officer of health to the borough of Portsmouth, they could have scarcely come to any other decision. The jury, however, awarded damages to the amount of £18 on account of excess in the measures taken by the defendants. Leave has since been given for a new trial, and the point raised by the plaintiff as to the validity of the bye-laws has yet to be decided. The importance of the question as affecting the power of urban sanitary authorities to exercise a salutary control upon the erection of unhealthy houses on undrained and unwholesome sites cannot well be over-estimated from a sanitary point of view.

*R. A. B.* is entitled, we presume, to the ordinary fees for evidence in such cases.

### VACCINATION *versus* SMALL-POX.

*To the Editor of* THE LANCET.

SIR,—As an appendix to a short note on revaccination which you were kind enough to publish in your issue of June 24th, may I ask you now to insert the following statement, which has I think, as coming last, the sting in its tail—I mean to the anti-vaccination fanatics.

Corporal W. R——, 13th Regiment, came back from London, after furlough, to Pembroke Dock on the 14th March, 1871. On the 24th of the same month he came sick with the usual signs of fever. He was taken into hospital, and gave the following history:—That he had been staying in London, and had been to see a favourite niece, who was "down with the small-pox," and the "child had it very bad." On this the man was placed in a tent on the top of a grassy hill, and small-pox it was that he was suffering from. The case ran an ordinary course, and though the eruption was confluent, the marks eventually did not cause any particular disfigurement. No complications occurred, and the man was discharged well after seventy-three days in hospital.

After a most minute inquiry (to which I was urged by disgust that all my trouble in revaccinating had allowed even one case to occur), I found that by an oversight in the regimental orderly room this man's name had been omitted from the list of men to be revaccinated, and, after going over the books carefully with the adjutant, I believe that he was the only man who had *not* been revaccinated, he being away on some duty at the time when *all* the men were revaccinated. Here then was the only man out of a great many who got small-pox, and this very man was the only one in the regiment who had not been revaccinated. Small-pox was prevalent enough in Dublin, Belfast, and Glasgow, and yet no case occurred amongst the men. I cannot conceive a better proof of the value of vaccination, and it must be remembered that during the time I am writing of, the men had been changed about three times—i. e., new men brought in and old ones discharged.

Of course I include women and children in this statement, and also include the large number of women living in the towns who were married without leave, but all of whom were revaccinated.

I remain, Sir, yours truly,
London, July 4th, 1876. W. H. T. POWER.

### TREATMENT OF ASCITES.

THE list of diuretics employed in this complication is not small; but it would appear that a French surgeon, residing in Algeria, has been very successful with *Juncus acutus*. About twenty stems should be subjected to decoction, both the white and green parts being used. It may be mentioned that M. Cazin has found similar properties in an indigenous plant (the *Butomus umbellatus*). One ounce of the reed is to be boiled in a quart of water.

### CONGENITAL MARKS.

*To the Editor of* THE LANCET.

SIR,—I recently attended a primipara in her confinement, whose case may be interesting to some of your readers.

In February last she had a fall in the street, striking the back of her head on the pavement. Although no serious injury was sustained, she was considerably shaken, and suffered from headache for some days.

On the 11th inst., after a tedious labour, the brow presenting, I applied the forceps, and delivered her of a male child. This child has a large, irregular red stain on the back of the head, about an inch and a quarter in diameter, covering the occipital protuberance, and extending to the posterior fontanelle. There are also a number of smaller stains in the skin over the atlas and axis, and a minute discoloration on the right upper eyelid.

I may add that the mother did not *anticipate* any evil effects to the child from her fall. Yours truly,
Plough-road, Rotherhithe, June 26th, 1876. W. OSCAR JENNINGS.

### TRIPLETS.

DR. LERICHE has published, in the *Lyon Médical* of July 9th, the case of a woman, aged thirty-eight, who, under the care of a midwife, was delivered at 4.30 P.M. of a boy, at 5.30 of a second boy, and at 6.30 of a girl. The placenta came away readily. According to the midwife's statement, the first child had presented with the head, the second was a breech presentation, and the third had presented by the shoulder. The sizes were gradually diminishing; the first being full grown, the second showing the size of an eight months' fœtus, or one of eight months and a half, and the third that of one of seven months or seven months and a half. They were all well formed, and cried very little, even the strongest one. There was but one placenta, weighing somewhat over a pound. It was divided into two unequal masses connected by a band; the smallest mass had an ordinary cord, measuring thirteen inches; the larger mass two cords, each having, like the former, distinct amniotic cavities. These two latter cords belonged to children of different sexes. There had been some alarming hæmorrhage between the second and third child, but was controlled by ergot. The mother nursed the largest child, and the two others were sent to the Maternity Hospital, where they had to wait a long time for wet nurses; but they resisted this untoward circumstance, and are all three doing well. The mother made a good recovery.

### PILULA PHOSPHORI, B.P.

*To the Editor of* THE LANCET.

SIR,—The following case will, I think, point out a small matter for revision in the next edition of the Pharmacopœia.

I had recently occasion to prescribe the pil. phosphori. It was made up exactly in accordance with the formula given in "Additions to the British Pharmacopœia," issued under the authority of the General Medical Council, the only addition being that the pills were silvered. In the course of a few days afterwards I was told by my patient (a man of about fifty-four) that the pills were passing undigested. I requested him if any more passed to save them for inspection. He did so, and on examination I found them in exactly the same condition as when swallowed, with the exception that some of the silver was absent. I did not imagine the silver could exert any protective influence. However, I directed the pills to be cut into several pieces, and taken in that form. This was done; but in the course of a day or two I was shown some of the cut portions which had passed through the stomach and bowels. They showed no trace of having been acted on by the stomach, the surfaces and edges being almost as smooth and sharp as if they had just left the knife.

It is clear, therefore, for some stomachs—perhaps all—the combination of yellow wax and balsam of Peru is quite unsuitable as a medium for the exhibition of phosphorus. I have prescribed both Kirby's and Richardson's compound phosphorus pills (the latter indeed to the patient just referred to), and have never had complaints of their indigestibility; but in the present case I wished to give the drug exactly as ordered by the Pharmacopœia. I remain, Sir, yours &c.,

J. W. AGNEW, M.D., M.R.C.S. Eng.

Hobart Town, Tasmania, March 30th, 1876.

### CHLORAL PLASTER.

FOR neuralgia, rheumatic pains, &c., use the ordinary emplastrum roborans, and powder it with the chloral. Apply the plaster to the affected part and leave it from twenty-four to forty-eight hours. When taken off, the skin is found studded with vesicles; these are to be pricked with a pin, followed by a dressing with simple ointment. The pain vanishes long before the vesicles are dried up.

*W. W.*—Erichsen's Surgery; Aitken's Practice of Medicine; Leishman's System of Midwifery. Royle's book will be found quite sufficient.

### EXTRA CHARGES IN OBSTETRIC CASES.

*To the Editor of* THE LANCET.

SIR,—Please inform me and some of my professional neighbours if there is any generally fixed idea of what a guinea midwifery case really is. Some think that the £1 1s. is to pull the patient through, the medical man taking his chance as to the nature of the case, easy or difficult, and whether the attendance be long or short; others are of opinion that attendance only until the morning of the third day should be understood, while some seem to make it their practice to be at the accouchement itself merely, and there to complete their engagement.

I should like to take this opportunity to ask for myself what would be the usual course to follow in a case in which the patient and the medical man had agreed upon £3 3s. for the attendance "during her confinement" should anything occur to render the attendance longer than would have been required in an uncomplicated case—e. g., placenta prævia, post-partum hæmorrhage, or phlegmasia dolens. Could more than £3 3s. be fairly demanded under any circumstances after such an agreement? When does attendance on a midwifery case cease? Yours &c.,

June 27th, 1876. TWENTY-ONE SHILLINGS.

*** Our correspondent's question is one that is constantly turning up in practice. The answer we conceive to be this: The medical fee for a confinement is to cover the whole of the case so far as it is an ordinary one, including the necessary subsequent visits for a week or so. But it is perfectly right to make a special charge in cases of extra difficulty, as in cases of severe hæmorrhage, or cases requiring obstetric operations, and also in cases requiring prolonged attendance, or an increased number of visits. It would be monstrous to have to attend an illness like cellulitis, or pyæmia, or phlebitis, or mammary abscess for a mere obstetric fee. Even the Local Government Board recognises the principle of extra fees in obstetric cases. This principle, of course, in private practice has to be applied with judgment and consideration to the means of the patient. Applied with this qualification, only shabby patients would object.—ED. L.

### TRICHINOSIS IN AMERICA.

THE Transactions of the Indiana State Medical Society for the past year contain a report on Trichinosis by Dr. Geo. Sutton. It appears that over five millions of hogs are slaughtered and packed annually in the Western States, not including those which are put up for family use by the farmers. Quite 4 per cent. of this is estimated to be diseased. From the cases of trichinosis which came under Dr. Sutton's observation, together with the results of post-mortem examinations, he comes to the conclusion that 90 per cent. of disease produced by eating trichinous pork appears either as gastro-enteritis or as diarrhœa or dysentery, and not more than 10 per cent. as the fully-developed form of trichinosis, in which the muscular system becomes affected. He thinks that trichinæ have a much larger influence in the etiology of enteritis, dysentery, &c., than is suspected by the profession. As in Germany, it was found that protracted salting of the meat did not kill the parasites; nothing but thorough cooking at a high heat will destroy them.

### CHLORAL IN TETANUS.

THIS substance has been known to fail in several instances; but it appears (according to the *Journal de Méd de la Haute Vienne*, March, 1876) that Dr. Bleynie has had a favourable case. The patient, aged fifty, had cut his finger with a hatchet, and was seized with trismus and tetanic contractions in other parts of the body. The first dose of the chloral began at forty-five grains, the third part to be taken every ten minutes. This was continued every three hours for several days, when the quantity was diminished, and in a fortnight the patient was well.

*A Subscriber.*—According to the new rules, which will be brought into operation as soon as the changes in the bye-laws are sanctioned, members of *twelve* years' standing will be examined in Surgical and Regional Anatomy only at the first Fellowship.

*Dr. R. H. S. Carpenter* is thanked for his communication. It should, however, be sent to the periodical in which the letter referred to appeared.

### ACEPHALOUS MONSTER.

*To the Editor of* THE LANCET.

SIR,—The following case, presenting as it does some unusual difficulties of diagnosis, may be of interest to those of your readers who are engaged in midwifery practice.

On the evening of April 29th, I was summoned to attend Mrs. B——, a primipara, and on arriving I found the os dilated to the size of a shilling, and tolerably soft to the touch. The presenting part could not be made out by vaginal examination. I therefore carefully examined the abdominal tumour. The patient herself drew my attention to the fact that it was on one side; the tumour occupying the right half of the abdominal cavity, and having the umbilicus on its left sloping border. Owing to the malformation of the child and the tension of the abdominal walls, I could learn nothing more than that the fœtus was longitudinally, and not transversely, placed in utero. At this stage of the labour I concluded it was a breech case, and that the prominence presenting at the os was the great trochanter of one hip. After a lapse of time I ruptured the membranes, in the hope that the escape of meconium would confirm this opinion, or at any rate that the parts would descend more within reach of the fingers. The meconium did not escape, but the presenting part descended until I felt what appeared to be an ear; but as there was no calvaria above it, and no mastoid process behind it, I felt so completely in the dark that I determined to explore, and if necessary turn. On introducing my hand into the womb, I felt a globular body, about the size of a large orange, lying on the left brim of the pelvis. It had none of the characteristics of the head, so I carried my hand to the fundus, where I found the nates and other related parts. The case was now clear, and I readily extracted the child by grasping the facial extremity with my fingers. The shoulders and body were so large that I have reason to think the vertebræ of the neck were dislocated in my efforts to extract them.

The fœtus was unusually large, and perfect in all its parts, except the head, and the facial portion of this was natural, although much deformed by the swelling incidental to a face case. The cranial vault was entirely wanting; from the root of the nose and the orbital arches, the surface sloped backwards and downwards to the nape of the neck, and what ought to have been here skin was composed of a red fleshy substance, having semi-transparent membranous borders, especially marked at the frontal fissure and near the ears. The latter organs stuck out prominently, and gave a cat-like appearance to the monster.

The father was so horrified at the sight of "the thing" that he sent it off to the undertaker's at once, and would not allow me to take the head for dissection.

There were no maternal impressions sufficiently pronounced to account for the deformity. The mother had no bad symptoms after delivery, and is now well. Your obedient servant,

BRAITHWAITE ROGERS, M.D.

Upper Westbourne-terrace, Hyde-park, June, 1876.

P.S.—In my attempt to be brief, I have left the reader to infer that the part first offering at the os was the tip of the right shoulder.

### REMOVAL OF THE OS CALCIS.

DR. VINCENT, in his late thesis, states that the subperiosteal removal of this bone (as performed by Dr. Ollier, of Lyons) is generally followed by complete regeneration. Nineteen successful cases have hitherto been published, and refer principally to young people. Persons of mature age are less favourable subjects. In fact, Dr. Ollier says: "The extirpation of this bone is justified by chronic inflammation and the failure of all minor means of curing the disease."

*Medicus.*—Our correspondent is bold and hopeful in his suggestions. We should be bold and hopeful, too if we saw any sign of an actual conjunction of infe[illegible] examinations. But we are still very dubious. At any rate, it would [illegible] nature to take thought for the greater objects until we have actually secured the lesser ones.

### A QUACK "SPECIALIST" APPRECIATED.

THE East London Medical Defence Association, through their Secretary, Mr. R. S. H. Carpenter, on Wednesday, the 5th of July, at the Thames Police Court, before Mr. Chance, and represented by Mr. Pridham, of the firm of Green and Pridham, charged W. Walton Spiller, of 189, High-street, Shadwell, with unlawfully using the title of "Doctor," and so violating the 40th clause of the Medical Act. Two detectives swore to the defendant having on his window "Dr. Walton," and on the doors "Walton, Surgeon." The defence was original. He said that he put the word "Venereal" before "Surgeon." The magistrate considered this an admission and an aggravation of the offence, warranting the full fine of £20. Not only so. He said: "I am of opinion that it was very right and proper that these proceedings should have been taken on the ground that people with such diseases, reluctant to consult regular doctors, fall into the hands of ignorant men, who inflict untold injury on them." It certainly is very gratifying to see one of these men fined, and to see his "specialty" regarded as an aggravation of his offence.

### PROFESSIONAL ETIQUETTE.

*To the Editor of* THE LANCET.

SIR,—Will you kindly give me your opinion on the case described below. I have put it A. B. and C. D., as I am not at all desirous to hand any man's name up. Will you do me the favour to print my question *in extenso* in THE LANCET of Saturday, so that any mistake may be avoided?

"A gentleman takes up his residence in a district, and the day after his arrival is taken suddenly ill. He sends his servant with a note addressed to Dr. A. B., requesting his attendance. The servant, not finding Dr. A. B. at home, goes to Mr. C. D., asks him to read the note, and visit the patient, which he does? The note being addressed to Dr. A. B., who is consequently the person that was wanted, what ought Mr. C. D. to do on his return from visiting the case? Ought he to keep Dr. A. B.'s note and retain the case, or call upon Dr. A. B., and hand over the patient?"—I enclose my card, and remain, yours faithfully,

July 5th, 1876. EPSILON.

*** Supposing A. B. and C. D. to be medical neighbours, living on terms of harmony, we think that C. D. should have seen the patient, explained that in doing so he was acting for A. B., and have communicated the fact that he had done so, with the note, to A. B. As the patient was apparently a stranger to both A. B. and C.D., it is quite possible that his wish would be to be attended by C. D., who saw him first. And in this case, as in all others, the wish of the patient should decide the question. But this fact should have been communicated by the patient's friends in the ordinary way to A. B., who was first called in, and for whom the patient presumably had a preference. It is not as if the servant had been sent for the first doctor he could find at home.—ED. L.

*Medico-Juridicus* (Edinburgh) had better consult Dr. Kraft-Ebing's "Lehrbuch der Gerichtlichen Psycho-Pathologie" (Treatise on Legal Medico-Psychology), especially the part devoted to criminal insanity. The sections on hysterical and epileptic derangement and on alcoholism as causes of crime are masterly. The legal references are to the German, Austrian, and French statute-books; but the principles are applicable to the English. A translation of the treatise might help to diminish that supercilious tone which our legal experts are so apt to assume with their medical brethren. The publisher is Enke, Stuttgart.

### A SUGGESTION FOR MODIFICATION OF THE STOMACH-PUMP.

*To the Editor of* THE LANCET.

SIR,—Happily it is not every day that we are called upon to use the stomach-pump; but it must have occurred to many that when imperative occasion requires its aid, we have in our hands an instrument even the most cautious use of which is not destitute of danger.

I would suggest that our instrument manufacturers, who are so ready to avail themselves of modern improvements, supply us with an *india-rubber stomach-tube*, in the place of the comparatively unyielding and dangerous elastic-web instrument now in use. It would seem that no difficulty will be experienced from collapse of the tube by the exhaustive action of the pump, when we take into consideration its probable substantiality and calibre, judging from the amount of resistance the thin elastic tube an infant's feeding-bottle is capable of without such a contingency, and the gag would protect it from injury by the teeth of a determined suicide. Who that has had difficult cases of prostatic enlargement to treat has not been thankful for such an instrument as the *india-rubber catheter* in place of the old elastic-web one? and may we not safely say that the use of this instrument has tended materially to prolong the life of many a sufferer from that disorder?

Yours faithfully,

Seascales, Carnforth, July, 1876. J. WARD, M.D.

### FIBRINE AND IODINE AS ANALEPTICS.

M. EYSSANTIER communicated in March, 1876, to the Medical Society of Lyons his researches on the nutritive powers of fibrine. These powers are much increased by the addition of iodine. The author considers that iodine can thus be introduced into the organism without any danger by means of the dried fibrine. The latter may also be combined with chalybeate salts, the citrates and tartrates, the pyrophosphites, the ammonio-citrates, and especially the iodide of iron. All these combinations are easily absorbed, and present, in a small bulk, the greatest possible proportion of nutritive elements.

*Mr. J. C. V.*—We think there must be some explanation not yet given of Dr. S——'s action. It is inconceivable that a medical man would go to see the patient of another practitioner without being asked to do so by the patient or some of his friends. But it is remarkable that Dr. S—— should not have answered a reasonable and courteous note of inquiry.

A BUTTON THROWN UP TWO YEARS AFTER BEING SWALLOWED.

DR. ROTH related the following case before the Medical Society of Strasburg:—Two years ago, in January, he was called to see a child three years old, who was said to have swallowed a button. A purgative was administered, but nothing was found in the dejections. Much vomiting occurred for some time, solid food could not be borne, but with a milk diet the patient recovered. In January last the child swallowed a second button. The same treatment was used, with no better success. Vomiting came on again, and on the twelfth day the button recently swallowed came up, and, besides, the first button, which had been swallowed two years before. Dr. Roth presented them both to the meeting. They were of the size of a franc. M. Boeckel expressed the opinion that the buttons had not lain in the stomach, but in a pouch above the cardia.

"PRESCRIBERS AND DISPENSERS."

*To the Editor of* THE LANCET.

SIR,—"Audi alteram partem" is an important maxim to be considered, and I know you are always most willing to put it in practice with your correspondents in their correspondence.

Mr. Tupholme, a chemist in my neighbourhood, has troubled you to reply and advise upon two bottles of drops prescribed by a physician, the one being ℥j. of the liq. strychniæ (P.B.); and the other, ℥j. of the liq. sodæ arseniatis, with the usual directions, and how to be taken. As I am the gentleman alluded to, allow me to state that I informed the chemist upon his calling upon me that this was an *exceptional* case, and I took the trouble to explain the reasons I had for prescribing in the peculiar manner I had done—viz., that this patient was a widow lady of great intelligence, mature age and experience, and one who knew well the nature of the remedies. Moreover, I told him this lady was of limited means, and begged to be rid of the trouble and expense of mixture prescriptions, of which she had been sorely tried for years past. I therefore had prescribed these drops with special instructions, as she was leaving for the country, and was provided with a minim measure.

Yours truly,

Earl's-court-road, Kensington, July, 1876. E. MAY, M.R.C.P.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. T. Chambers, London; Mr. Hills; Dr. McRae; Dr. Gribbon, Fyzabad; Dr. Blanc, Bombay; Dr. Alexander, Bradford; Dr. Leslie; Mr. Fairweather, Delhi; Mr. Vandrey, Sheffield; Dr. J. C. Hunter, Devonport; Mr. Odell, Leeds; Dr. Cassells, Glasgow; Mr. Chapman; Mr. Fowke, London; Dr. Trenholme, Montreal; Messrs. W. and A. Johnston, Edinburgh; Mr. J. Reed, London; Mr. Redwood, Rhymney; Mr. Griffin, Weymouth; Mr. Bower, Press; Miss Nelson, Carrickfergus; Mr. Fowler, Cirencester; Mr. Jenner, London; Dr. Myers, Shelby, U.S.A.; Mr. Page, London; Dr. Spencer, Holloway; Mr. Fox, Bristol; Mr. Barber, Manchester; Mr. Bramwell, Newcastle-on-Tyne; Mr. Shaw; Mr. Cannon, London; Mr. Roe, Rawal Pindi; Mr. Grant, Birmingham; Dr. Ritchie, Otley; Dr. Bakewell, Nelson, New Zealand; Mr. W. Kimpton, London: Mr. W. Berridge, London; Mr. Roberts, Bradford; Mr. Harriot, London; Mr. W. T. Power, London; Mr. Bestick, Haverstock-hill; Messrs. Debenham and Tewson, London; Dr. Foster, Birmingham; Mr. R. Kershaw, London; Mr. Eberle, Easingwold; Dr. May, Kensington; Mr. W. Rose, London; Messrs. Bowles and Cross, London; Mr. Cooke, London; Mr. Jones, Pontypridd; Dr. Baines, London; Mr. Barras, Rotherham; Mr. Berridge, London; Mr. Davies, Leicester; Mr. Meadows, Hastings; Dr. Carter, Liverpool; Mr. Young, London; Mr. Carpenter, Maidstone; Dr. Sturges, Beckenham; Mr. Turner, London; Mr. Morton, Lincoln; Mr. Lethbridge, Colyton; Mr. Peacock; Mr. Hay, Wolverhampton; Mr. Sandland, Huddersfield; Mr. Rogers, Carnarvon; Mr. Pateman, Harwich; Mr. Young, Manchester; Mr. Green, Haverfordwest; Mr. Johnson, Trowbridge; Mr. Williams, Ilfracombe; Dr. Thomas, Glasgow; Mr. C. F. Bryan, Leicester; Dr. Gill, Liverpool; Mr. Kelly; Mr. Charlton, Penge; Mr. Collier, London; A Surgeon-Major; Chemist and Druggist; Norge; X. Y., Brenchley; A Trustee; The President of the Royal Institute of British Architects; Medicus; Senex; Dr.; Medico; B.A., M.D.; H. H.; W. W.; Surgeon; The Director-General of the Navy Medical Department; M.D., Brighton; The Registrar of the College of Physicians; Servia; Student; The Sanitary Institute of Great Britain; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Hyslop, Church Stretton; Messrs. Fox, Bridlington; Mr. Smallhorn, Eynsham; Miss Carty, London; Dr. Dixon, Moss Cliffe; Mr. Wilson, Stanton Wick; Mr. Hall, Llanrwst; Mr. Hughes, Pendlebury; Messrs. Cater and Co., Launceston; Mr. Batten, Bromsgrove; Mr. Cole, Hatton; Mrs. Mackey, Southampton; Messrs. A. and C. Black, Edinburgh; Mr. Brocklebank, London; Mr. Eberle, Easingwold; Mr. Gibson, Halifax; Mr. Newington, Goudhurst; Dr. Winterbotham, Bridgwater; Mr. Griffiths, Godalming; Mr. Wetwan, Cheltenham; Dr. Whidborne, Topsham; Mr. Hilliard, Birmingham; Mr. Shaw; Mr. Hall; Mr. Clark; Medicus, Willenhall; A. B. C., Stow-on-the-Wold; Delta, Leeds; Alpha, Aberdeen; Beta, Leeds; M.D., London; C. T.; E. P.; L.R.C.S.; Medicus, Sheffield; Alpha, Westbury; M. B., Bedford; Beta, Oakham; A. B. C., Leicester; Delta, London; J. K., Glasgow; M.D., Bourcham; Medicus, Birmingham; N. W. F., Montgomery; Surgeon, Darwen; M.D., Middlesborough; Medicus, Edinburgh; B. P. A., Edinburgh; B. A., Islington; Beta, London; D. E., London: Medicus, Manchester; T. A. C. H.; P. M., London.

*Manchester Guardian, Calne Chronicle, Newcastle Daily Chronicle, Welshman, Solicitors' Journal, Examiner, Broad Arrow, Whitehall Review, Colonies, Hastings and St. Leonard's News, Rock, Pulman's News, Metropolitan, East London Observer, Surrey Advertiser, Western Morning News, Yorkshire Intelligencer*, and *Tower Hamlets Independent* have been received.

## METEOROLOGICAL READINGS

*(Taken daily at 8 a.m. by Steward's Instruments.)*

THE LANCET OFFICE, JULY 13TH, 1876.

| Date. | Barometer reduced to Sea Level, and 32° F. | Direction of Wind. | Wet Bulb. | Dry Bulb | Solar Radia. in Vacuo | Max. Temp. Shade | Min. Temp. | Rain-fall. | Remarks at 8 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| July 7 | 29·83 | W. | 60 | 67 | 117 | 79 | 61 | 0·14 | Bright |
| „ 8 | 29·78 | W. | 62 | 67 | 102 | 74 | 61 | ... | Cloudy |
| „ 9 | 29·93 | S.W. | 62 | 67 | 111 | 77 | 58 | 0·04 | Cloudy |
| „ 10 | 30·02 | W. | 55 | 56 | 108 | 71 | 54 | ... | Cloudy |
| „ 11 | 30·18 | N.W. | 53 | 62 | 101 | 68 | 53 | ... | Cloudy |
| „ 12 | 30·44 | N. | 52 | 61 | 108 | 75 | 52 | ... | Hazy |
| „ 13 | 30·41 | W. | 59 | 68 | 110 | 81 | 56 | ... | Fine |

# Medical Diary for the ensuing Week.

### Monday, July 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Brown-Séquard, "On Paralysis as an Effect of Brain Disease."

### Tuesday, July 18.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

### Wednesday, July 19.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 3 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Brown-Séquard, "On Paralysis as an Effect of Brain Disease."

### Thursday, July 20.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

### Friday, July 21.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Brown-Séquard, "On Paralysis as an Effect of Brain Disease."

### Saturday, July 22.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.


## NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

## TERMS OF SUBSCRIPTION TO THE LANCET.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year ..... £1 12 6 | Six Months ..... £0 16 3

TO THE COLONIES AND INDIA.

One Year ..... £1 14 0

Post Office Orders in payment should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable to him at the Post Office, Charing-cross.

## TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under .....£0 4 6 | For half a page ..... £2 12 0
For every additional line ... 0 0 6 | For a page ..... 5 0 0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

N.B.—All letters relating to Subscriptions or Advertisements should be addressed to the Publisher.

**Agent for the Advertising Department in France—**
Mons. DE LOMINIE, 208, Rue Grenelle St. Germain, Paris.